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THE

MEDICAL RECORD

A Weekly Journal of Medicine and Surgery

EDITED BY

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THE DIFFERENTIAL DIAGNOSIS OF MALARIAL FEVERS.

BY SIMON BARUCH, M.D.,
NEW YORK.

IN a recent paper [1] it was demonstrated that errors in the diagnosis of malarial fevers are frequent, in fact so constant that of the mortality ascribed to these diseases in the records of the New York Board of Health, a very large proportion may be attributed to causes other than malarial.

There is reason to apprehend that this recklessness of diagnosis is not limited to this city, but that it obtains also in other centres, where large aggregations of people are subjected to unsanitary influences, arising from overcrowding and defective systems of drainage and sewerage. These etiological elements have recently been erroneously grouped under the common head of "malaria." Thus a hydra-headed monster has arisen, which is regarded as the prime cause of every obscure case of illness, as has been shown in my last paper. Quinine is resorted to for its prevention and subdual. Because of its well known anti-malarial properties, the diseases arising from this so-called "malaria" are attacked by this remedy. But in vain. The grand weapon of the physician has lost its edge; the keen blade recoils without making an impression upon the enemy.

Why this failure? The diagnosis is plainly at fault; diseases which do not owe their origin to true malarial influences are confounded with the latter. The word malaria denotes "bad air;" therefore all bad air produces malarial diseases, is the fallacious reasoning of the laity, and unfortunately also of many members of the profession. The term "malaria" has therefore proved to be an unhappy one, although it was intended to supplant the former incorrect designation "marsh miasm." That malarial diseases are not invariably the result of paludal emanations has been long ago demonstrated, and efforts have been made to adapt the nosology to the recognition of this fact. Léon Colin [2] discards the term malaria, and suggests in its stead "intoxication tellurique," thus recognizing it as a noxious influence, arising from the soil, outside of human habitations. That the latter furnish another and very different type of malaria or miasm, as different in its etiological effect as it is in its origin, is a fact which appears recently to have been disregarded, and which it is proposed to emphasize in this paper.

Before proceeding to the discussion of the differential diagnosis of malarial fever, it will be proper to define clearly what this term implies at the present time. In all works on the practice of medicine and among the majority of college teachers, this term has been restricted to a type of fevers "which are characterized by their prevalence in certain regions of the world known to produce the poison, malaria, by their periodicity and by the regular succession of the cold, hot, and sweating stage" (Bartholow).

Maclean [3] says: "Malaria, syn. marsh miasm; definition—an earthborn poison, generated in soils the energies of which are not expended in the growth and sustenance of healthy vegetation. By almost universal consent this poison is the cause of all the types of intermittent and remittent fevers, commonly called malarial."

"There are certain affections which have been almost universally recognized as being the result of a malarial or telluric poison upon the system. Among these the most striking are fevers of an intermittent and remittent type" (Roberts [1]).

"Malarial affections comprise a class of diseases, that are usually marked by a perceptible, often very considerable rise of temperature, and which are furthermore to be recognized as constituting different forms of one and the same morbid process, because of their origin in the same purely miasmatic causes" (Hirsch [2]). Farther on Hirsch argues (pp. 563 to 568) for the origin of this miasm from the combined effect of heat, moisture, and "decomposition of organic, chiefly vegetable matter."

The most recent utterances of sanitarians (at the late meeting of the American Public Health Association) are significant also, inasmuch as they reaffirm this theory of the origin of malaria. There is, therefore, a consensus of opinion among authorities of different nations, of which the above are a fair illustration, representing as they do the most recent American, English, and German authorities, with regard to the source of the malarial poison, and also with reference to the definition of the term "malarial fevers."

It is now in order to emphasize the fact that the latter are traceable to an earthborn or telluric poison, in contradistinction to those pseudo-malarial fevers which owe their origin to an "animal" poison, arising from human emanations, and which has received from Dr. Edward Miller [3] the very appropriate designation "idio-miasm." [4] Dr. Miller and those who followed him, before modern investigations had thrown light upon the subject of specific fevers, gave this term a wide significance. I propose, however, to restrict it to that "poison" or those noxious influences which are generated by overcrowding in badly ventilated dwellings, hotels, flats, and other habitations (voluntary or enforced), and which are often traceable and due to emanations (perceptible or imperceptible) from drains, cesspools, sewers, *without the intermingling of specific disease-germs*. A clear distinction of these two etiological factors will aid us vastly in the true realization of the nature of remittent and continued fevers (of non-specific type), and in the adoption of correct therapeutical measures.

It would be presumptuous to attempt a delineation of the differential characteristics of malarial and other fevers, since these diseases are constantly described by teachers and writers, and form a large proportion of every physician's work in most sections of this country. I feel reassured, however, when I refer to the evidence I have adduced in my last paper, that the effort will not be regarded with disfavor.

If the term "malarial fevers" were strictly limited to the class of fevers arising from the causes assigned to

[1] Malaria as an Etiological Factor, etc. THE MEDICAL RECORD, November 10, 1883.
[2] Traité des Fièvres intermittentes. Paris, 1870.
[3] Quain's Dict., p. 913.

[1] Practice of Medicine, p. 245. 1881.
[2] Ziemssen's Cyclopedia, vol. ii., p. 559.
[3] The Medical Works of Edward Miller, M.D., p. 193. New York, 1814.
[4] "The koino-miasmatic atmosphere (κοινος, common or public) is that which is derived from a common or public mass of putrefying matter exposed to the solar influence," while, on the contrary, the "idio-miasmatic (ἰδιος, personal or private) is that derived from a personal or private source, being produced from the filth of individuals and their habitations and diffused around them only for a small distance."

them by the authorities above cited, their management would afford the most gratifying therapeutical results which our art affords. There is no remedy in the whole range of medicine which the physician may wield with greater confidence, and to which therapeutic results may be more directly traced, than quinine in its application to true malarial fevers of every type, including the most serious.

It is important, therefore, to distinguish carefully the symptoms of diseases which simulate this class of fevers, and to eliminate all sources of error that may threaten a correct diagnosis.

It is the object of this paper to group the semeiological elements of malarial and other fevers, intermittent and continued, in such manner as to define clearly their characteristic as well as atypical features, as obtained from personal observation and from the study of practical writers on the subject.

I recognize three distinct types of malarial fevers, viz.:

1. Intermittents in their various manifestations.
2. Remittent fever.
3. Congestive or algid fever.

The latter form may be dismissed from the discussion, because it cannot be readily confounded with other types of fever, and is encountered only in localities where high temperatures develop an intense malarial toxæmia.

The symptoms of intermittent fevers are, as a rule, so pronounced and their history so clear that their diagnosis is devoid of difficulty, especially as diseases simulating them are extremely rare. It will only be necessary in this connection to insist upon the fact that in masked cases of intermittent fever the symptoms may be obscure and possibly give rise to error. It is important in these cases to trace the history back to their earlier manifestations, and to bear in mind the tendency of all malarial fevers to recur in septenary periods or their multiples. The same law of periodicity which governs the disease while it occasions the paroxysm, continues to preside over its latent movements during the interval when no fit occurs, and thus the true periodic rate is carried on (as Graves, of Dublin, happily expresses it) "as in a clock from which the striking weight has been removed, the usual signal does not mark the termination of each certain definite portion of time."

Errors will occasionally creep into our diagnosis through inattention to the latent period of this affection. As a rule, they are readily eliminated. Among diseases which simulate severe intermittent fevers, *pyæmia* stands pre-eminent. Fortunately this disease is rare, but for this very reason it is essential to guard against error of diagnosis. Dr. Charles Murchison[1] says that, in his experience, the paroxysms are at times periodic and present a type of intermittent pyrexia. Sometimes they only occur after an interval of several days, at others they are quotidian, while in some instances there may be more than one paroxysm in twenty-four hours. Each paroxysm consists of a transient chilliness, or it may be a decided rigor and chattering of teeth followed by dry heat and by profuse sweating. Rigors may occur only in some paroxysms, but sweating is rarely absent. During the paroxysm the temperature may rise to 105°, 106°, or 107°. Paroxysm usually lasts from three to six, rarely over twelve hours. After its termination a certain amount of pyrexia may remain; the fever only remits. But very often there is a complete apyretic interval, during which the temperature may fall to 96° or 97°. Indeed, the great range of temperature is often remarkable, it may exceed 10°. Moreover, as in malarial fever, the spleen is often more or less enlarged. Billroth[2] suggests that the paroxysms of fever have a similar origin to those of ague; septic matter, formed, perhaps, from decomposing pus being poured from time to time into the blood and, under favorable circumstances, exciting rigor and fever. "When the cause of the fever is external, as after an injury or surgical operation, the nature of the case is sufficiently clear; but when the cause is internal, such as gall-stone, ulceration of some mucous membrane (stomach, bowels, appendix, bladder), ulcerative endocarditis, disease of petrous bone, it may escape observation and there may be difficulty in determining its nature." Murchison has "repeatedly known cases looked upon and treated as malarial ague, when the real cause of the intermittent fever has been pyæmia and the error is all the more likely to be committed because large doses of quinine, although they will not arrest, will sometimes postpone the paroxysm."

In connection with the subject of diseases simulating malarial intermittent fever, the following case, reported by Thomas, of Freiburg, to the Fifty-fifth Versammlung Deutscher Naturforsher in Eisenach, will probably prove interesting: "Patient, six years old, who probably had fatty heart and liver and suffered from emphysema, was suddenly attacked by a very violent chill, which passed off in one or two hours and terminated in complete recovery, without any cause being discoverable for such an attack. These attacks returned every three or four days, in the same manner, for a period of four weeks, without his being able to establish an intermittent by splenic tumor, climatic condition, or therapeutic measures. Quinine, etc., were without effect. During the intervals between the paroxysms patient was perfectly well. A complete restoration of twelve days' duration was established, so that patient made preparations for a journey, when suddenly the old attacks again appeared, at first daily, afterward twice a day, with only a very brief apyrexia. Four days before his death an increasing hebetude was noticed, but patient still answered questions and recognized his surroundings. There was no paralytic symptoms. Post-mortem showed softening of first occipital convolution with diffused meningitis over the same. The interest of the case lies in the typical chills, for which no direct cause could be assigned."

Lewinstein[1] mentions the occurrence of regular intermittent fever among morphia habitués. The paroxysm lasts four to ten hours; there is rigor, heat, and sweating; temperature rises to 104°; the spleen is enlarged during the paroxysm. Neuralgia, of the intercostal, cardiac, or supra-orbital type, sometimes accompanies the fever, which bears a decided resemblance to malarial types. Quinine postpones the paroxysms at first, but they return until the habit is abandoned.

In these cases, as in all others presenting difficulty of diagnosis, quinine affords a crucial test, as is well known. But it is not the quantity administered, but the effect, viz., cinchonization at least one hour before advent of paroxysm, which should be the guide.

Remittent fever (autumnal fever), in the South termed bilious fever, is a disease which may be simulated by fevers arising from non-malarial causes, and requires a more exhaustive delineation for purposes of differential diagnosis. Southern practitioners residing in the vicinity of watercourses or alluvial lands observe a large number of cases of this disease every summer and fall; it is so rarely met with during the winter months that its absence may be regarded as a rule. This is essentially a fever of high temperatures, and is so regarded by the majority of writers on the subject. During three years' summer residence in a so-called malarious section of this city, I have observed but one case of clearly defined remittent fever, although my opportunities were ample in public and private practice. Among fifteen hundred children, teachers, and other employees connected with four public institutions, all of which were under my sole medical charge last summer, and the three largest of which had been under my charge during three successive summers, not one case of remittent fever was observed. I would, therefore, be justified in the assertion that the true malarial remittent is rare in this city.

[1] London Lancet, 1879, i., 618.
[2] Lectures on Surg. Pathology, ii., 55.

[1] Morphiumsucht. Berlin, 1877.

The disease is ushered in by a chill. Not infrequently it forms the sequel of a neglected intermittent; the poison having become intensified by repetition of attacks of the latter, and continued exposure to malarial influences. The chill is not always clearly defined, as in the intermittent, but is described by the patient as a creeping sensation running down the back and diffusing itself under the skin of the extremities. The hands and feet, nose and ears are cold; the patient's speech is interfered with by unsteadiness of the masseter muscles, which are disposed to tremulous movements whenever the mouth is opened. Chattering of teeth and other evidences of a well-pronounced chill are absent in a large preponderance of the cases.

Muscular soreness in various parts of the body are common; they may continue throughout the first twenty-four hours. Reaction sets in rapidly. The temperature during the cold stage does not rise so high as it does in the intermittent, but so soon as reaction is established and the extremities become warm there is a rapid elevation of temperature. The countenance becomes flushed, conjunctivæ injected; the eyes are brilliant, unless headache is severe, when the lids are apt to droop. There is a throbbing headache, which, from personal experience, may be likened to the beating of a hammer within the temples, and a sensation as if the frontal bone were lifted by each throb. The severity of the head-pain is dependent upon the previous condition of the primæ viæ; constipation always aggravates it.

In the more severe cases a violent delirium supervenes; not a muttering delirium with expressionless features, but a noisy raving, accompanied by great jactitation and active movement requiring restraint.

The thirst is intense from the first moment of the paroxysm. In no form of pyrexia is the thirst so violent and unappeasable. "Oh! that I could have the creek running through my throat!" is a frequent ejaculation of the fever-smitten negro. I have seen patients consume enormous quantities of cool water and still cry for more. The sweetest sound that ever greeted my ear was emitted by the gentle tinkling of ice in the water-pitcher which was approaching my bedside when suffering from this disease. This intensity of the thirst is characteristic even in mild cases of remittent fever.

The skin assumes a dingy yellowish hue immediately upon the establishment of reaction, and so continues until several days after convalescence; this is not a jaundiced hue. The conjunctival mucous lining does not share it, as in icterus, except in the most severe types, when liver infarction has supervened. There are no spots at any stage of the disease upon the chest or abdomen; but an herpetic eruption around the mouth often marks the latter stages, especially during convalescence. Sudamina are occasionally seen in the declining stages, when perspiration has been profuse and continuous.

The tongue presents a characteristic appearance. It is rapidly overcast by a more or less dingy coating, sometimes brown, but more commonly leaden-hued. Its chief characteristic, however, is the rounding of the edges, and their being marked by alternate ridges and depressions, which are sometimes irregular, giving the appearance of puckering, while to the touch the edges are smooth. During the acme of the pyrexia the tongue is parched and dry; the papillæ near its extremity seem to penetrate through the viscid or dry coating, which at this point is thinnest. When the fever begins to remit, the tongue softens and becomes flaccid and moist. Among the older Southern practitioners a recognition of the appearance and change of the tongue was regarded as important for prognosis and treatment as is the thermometer to-day. So much stress was laid upon the necessity of keeping the tongue soft and moist, that mercury in small doses was repeatedly administered in order to hasten its softening, the latter being regarded as an *indication* that the threatening visceral inflammations were *stayed* in their lethal progress.

The conditton of the tongue described above I regard as almost pathognomonic in all malarial fevers.

Ophthalmoscopic aid has been invoked in the diagnosis of malarial fever by Poncet.[1] He has found frequently changes in the appearance of the fundus which may be summed up briefly as constituting a retino-choroiditis. "The papilla is prominent," says Poncet, "and of a grayish color, the peri-papillary zone of the retina is œdematous (under the membrana limitans interna fluid is found, as demonstrated by anatomical investigations); the vessels are greatly distended. There are hemorrhages in the retina, most numerous in the ciliary zone, less so in the posterior pole. The hemorrhages often show in the centre very abundant accumulation of white blood-corpuscles. As in other organs, pigmented white blood-cells, often of considerable magnitude, are found in the vessels of the fundus." Personally the writer has no experience with ophthalmoscopic examinations in malarial fever, but it is an interesting subject and is alluded to here in order to render the description of symptoms complete.

The *alimentary canal* presents symptoms which are decidedly characteristic. Nausea and vomiting frequently usher in the attack, being present even during the cold stage. There is a sense of weight and constriction in the epigastric region, accompanied often by burning and extreme distress, all of which are aggravated by gratification of the fearful thirst. Large quantities of cold water are imbibed only to be again ejected, clear or mixed with bile and mucus. Bile is constantly regurgitating into the stomach, and thus nausea is maintained and vomiting continues until checked by appropriate treatment.

The *bowels* are usually constipated; there is rarely tympanites. If tenderness be present, it is found chiefly over the region of the liver, stomach, and spleen. Percussion gives an increased area of dulness over the latter organ, especially if intermittents have preceded the attack.

The *urine* is high-colored and scant, as in other pyrexiæ. It varies greatly during a period of twenty-four hours, being more abundant during the remission, and again becoming scant and more deeply colored during the exacerbation or in the event of visceral complications. The older Southern practitioners laid much stress upon this secretion as a guide to prognosis and treatment.

The *temperature* in remittent fever is pathognomonic, and may be regarded as more significant than in typhoid fever. In no disease, except pyrexiæ from pyæmic processes, in which the history will clear up the diagnosis, do we encounter such active excursions of the temperature curve. The lowest point is usually reached during the early morning hours, or before dawn of day. Frequently the thermometer will mark 99° at 4 A.M., remaining stationary until five, and gradually rising as the day advances, until 106°, 107°, and even 108° is reached when the shadows are lengthening. The high temperature is maintained until near midnight, when it begins to drop until the remission is established about 4 or 5 A.M. Unfortunately the physician is absent during the small hours of the night, unless experience has taught him that these are the golden hours for treatment With the decline of temperature the pulse beats with less force and frequency, the skin becomes moist, tongue soft; thirst, nausea, and vomiting abate or disappear entirely, headache ceases, jactitation subsides; the patient sinks into a quiet slumber. As if by a mysterious hand, he is transported to comfort and happiness, after having been racked by pain and thirst and vomiting the livelong day and night. And how often does he sleep the happy hours away? The nurses, having been taxed to the utmost, nestle themselves into their easy chairs, and while watching the sweet repose of the patient, themselves droop and slumber. So common is this early morning remission in true malarial remittent fever that it has been my practice for many years, whenever a serious case

[1] Retino-choroidite palustre. Gaz. Med. de Paris, 28.

came under my observation, to visit the patient at dawn of day. Often have I stealthily entered the sick chamber and found patient and nurses snoring in sweet accord, and often in my earlier practice have I erroneously attributed this happy condition to my fever mixtures. But woe unto the patient if these brief hours of respite glide by unused for treatment. Now the gastric irritability is allayed, now thirst has abated, and now is the time to act and act promptly. Quinine, the sheet anchor, which was rejected again and again by the stomach and bowels, and which failed to act, hypodermically administered, is kindly received by stomach and rectum during the existing truce. If the patient be not cinchonized before the day is advancing, another paroxysm occurs, which in the severe types may be fatal, in others is repeated daily, until the fever becomes continuous and the patient succumbs or recovers with organic lesions which will drag him down by gradual stages. Sad experience has taught me that the morning remission of remittent (true malarial) fever affords at once a pathognomonic symptom and a therapeutic opportunity.

In the "Transactions of the South Carolina Medical Association" for 1875, I reported a case which illustrates this point. I removed a sarcomatous tumor involving the entire left upper maxilla from a boy, sixteen years of age. Patient made a good recovery, being able to visit my office thirteen days after operation. On the fifteenth day tetanus supervened, from which patient recovered under enormous doses of chloral and potassium bromide. Two days after complete abatement of all tetanic symptoms, twenty-five days after operation, he was attacked by a chill, followed by fever, developing a severe remittent which was at that time prevailing in the lower portion of Camden, S. C., where he had been brought from his more salubrious hilly home. Quinine was ordered, ten grains at 1 and 3 A.M. to forestall remission. The ignorant mother administered ten grains at 10 P.M., and the remainder on the next morning; failing thus to cinchonize patient. He succumbed to the disease despite energetic treatment. During the same season I saw two cases, one an adult, the other a child, fall victims to disobedience of instructions with reference to the administration of quinine during morning remission.

The *pulse* offers no special diagnostic indication; it does not differ from the pulse in many other pyrexiæ; being full, hard, strong, and accelerated during the exacerbation, soft and more natural in frequency and other qualities on the approach and during the existence of the remission.

The *respiration* is embarrassed in the cold stage; there is præcordial oppression, followed when reaction occurs by acceleration. It again becomes nearly normal during the remission.

Both the pulse and respiration afford a reliable index of the approach of lethal complications, the former becoming rapid and feeble, and the latter furnishing good examples of Cheyne-Stokes breathing in many cases, on the approach of death.

I have delineated a clearly defined case of true malarial remittent fever from personal observation to serve as a guide for diagnosis. It remains to allude to that form of the disease which is not so clearly marked, and another type which is the result of improper management.

The former, mild remittent, though not marked by so high a temperature, still presents a pathognomonic excursion of three to four degrees; though not characterized by intense headache and jactitation, still shows an absence of listlessness and confusion of mind; though not marked by intense thirst, it still offers examples of greater longing for cool beverages than is found with the same febrile symptoms in other diseases.

The tongue presents the characteristic appearance described above, and together with the yellow hue of skin, thermometric excursions, and morning remissions, renders the picture of a mild malarial remittent clear and distinguishable from other fevers.

The type of remittent fever which is developed when the early stages have been allowed to pass without active treatment, especially during the morning remissions, is with difficulty diagnosed from adynamic fevers. In the course of a week the remissions have become less distinct every day; the fall of temperature becomes less defined, while the higher points are still reached in the evening. Infarctions take place in the spleen and liver; the mucous lining of the stomach becomes congested. Great prostration of the nervous system ensues; the pulse becomes rapid and compressible, respiration accelerated, surface heat is increased, with cool extremities. The tongue becomes dry and contracted, its edges sharply defined and red; there is almost insurmountable dislike of food; thirst is intense; vomiting and nausea not marked, unless gastritis has supervened. The bowels often become relaxed, diarrhœa following upon constipation; this is often the sequel of medication by active mercurial cathartics. The temperature ranges from 102° to 104° or 105°; a progression of morning, and retrocession of evening temperature having been established. When the case progresses unfavorably, temperature rises to 107° and higher; there is profuse perspiration over the entire body; extremities gradually become more cool; face anxious and pale, with circumscribed efflorescence on cheeks; there is subsultus and picking at bedclothes, and hiccough; gradually the intellect becomes clouded; coma ensues; we have Cheyne-Stokes respiration, and the scene closes. This period may last from one to four weeks.

It is a notable fact that so soon as visceral infarction takes place, and the temperature indicates a more continued form of fever, these organic diseases usurp the original malady, and quinine is proportionately bereft of its specific effect.

While I recognize quinine as a specific anti-malarial remedy, I do not so regard it in the sense of a true antidote. During the early stages of the true malarial remittent its power is well-nigh miraculous, changing the aspect of the most threatening cases in the course of a few hours, so that they seem to be snatched from the very jaws of death. Just in proportion, however, as the periodical element wanes and is replaced by continuity of pyrexia, the power of quinine vanishes, and the physician now wages an unequal battle. For this reason quinine has failed to be of special service in the so-called typho-malarial fevers. Its action is rapid, decided, unquestionable in true malarial fever, so that whenever it fails to make an impression in a case of doubtful character, *after cinchonization is pronounced*, the diagnosis may well be doubted. This has come to be a recognized axiom.

(To be continued.)

AN APPARATUS FOR THE INHALATION OF CORROSIVE SUBLIMATE IN PHTHISIS.—Dr. E. P. Brewer, of Norwich, Conn., sends us the description of an apparatus which he has devised for applying corrosive sublimate (the most potent destroyer of the bacillus) in phthisis. He uses oxygen as a medium for carrying this drug into the lungs. The apparatus consists of a tank holding one hundred and twenty gallons of oxygen at a pressure of one hundred and twenty-five pounds per square inch; a wash-bottle and a drying-bottle, such as are ordinarily used for washing and drying gases. Finally, a metal receptacle holding eight ounces and heated by a lamp. In this receptacle is placed a solution of corrosive sublimate 1 to 800 or 1,000, and heated. The oxygen passes through the washing- and drying-bottles, then through the hot and partially vaporized solution of corrosive sublimate. It then passes out through a rubber tube and is inhaled. Dr. Brewer is not yet prepared to report upon the practical results achieved by the use of his apparatus.

THE TREATMENT OF ORGANIC STRICTURE OF THE URETHRA BY ELECTROLYSIS.

By W. H. DUKEMAN, M.D.,
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THE decomposition of fibrous tissues by the therapeutic agent electricity—the galvanic or constant current—is no longer a disputed fact.

In our text-books on electricity we find many given experiments for the decomposition of various substances by this agent. But we fail to find anything of a simple experiment, by which any reference is made to demonstrate the utility of electrolysis in the treatment of organic stricture of the urethra, although much is said in favor of electrolysis in the successful treatment of morbid growths, tumors, chronic inflammations, etc.

In this article I desire, and will attempt, to demonstrate the principle of electrolysis on animal tissues, and will here quote the experiment given by me and reported in THE MEDICAL RECORD, vol. xxiii., No. 25. It is as follows: "Take a small piece of fresh beefsteak and lay it on an insulated surface. Then with the positive electrode placed on under surface of the beefsteak, and the negative electrode on its upper surface, where the decomposition can be watched, the conducting cords are now connected with six cells of the galvanic battery. By close observation in a few seconds the effects of the electrolysis on the tissues will be seen to take place. By continuing the experiment for a few minutes the results will be distinctly appreciable."

Now when we treat stricture of the urethra by electrolysis we have just such an action taking place on the fibrous tissues of which a stricture band is composed. Yet some of the most eminent of our profession say the treatment has failed in their hands, and denounce the operation as unsuccessful and unsatisfactory.

In my experience of twenty-eight cases, during the last two years, I have not had a single failure, and experience in operating has taught me that the following rules must be absolutely adhered to:

First, select a good galvanic battery which gives a steady, smooth, gentle, constant, current, of the strength of from five to fifteen volts. The urethral instruments used for the absorption of the stricture are bougies, made of metal and insulated with rubber, except the point, which is a silver bulb olive-shaped.

Having selected the necessary instruments we can proceed with the operation.

The recumbent position is the best. It is more agreeable to the patient and is to be preferred. To the positive pole a sponge electrode is attached, moistened with water and placed in the patient's hand, or laid on the thigh. To the negative pole the insulated electrode bougie must be attached, and the instrument should always be inserted into the stricture before connections to the battery be made, so as to avoid any shock to the patient. The electrodes in position, connections are now made with one or two cells of the galvanic battery, and gradually increased to the desired strength. It is always advisable to begin the operation with a mild current and increase one cell at a time. Mild currents in the majority of cases give the best results. The bougie must be gently guided, no force should be used, and no pain should be inflicted. The electrolysis alone is to do the work. Care must be exercised to keep the bougie in line, so that the point will not deviate and make a false passage.

The operations should be repeated at intervals of from two to four weeks, as experience has taught that too frequent operations at short intervals are unsatisfactory.

If space will permit I will relate three cases to show the manner in which I operated, and the course and result of the operation on the patient.

CASE I.—Mr. N. W——, aged twenty-seven, a mechanic, presented himself for treatment August 18, 1882. Stricture, one inch and a half from meatus, admits only a No. 15 French bougie. Meatus urinarius very small, admitting only No. 19 French bougie. Meatus was enlarged by an incision to admit a No. 19 English sound, my patient lying on a couch on his back. I inserted a No. 19 French insulated bougie to the seat of the stricture. The sponge electrode was placed on the thigh, and connections were made to three cells of the galvanic battery. The strength of the current was increased one cell every minute until eight cells were in operation. In fifteen minutes the bougie passed the stricture into the bladder. The electrolysis caused no pain. The patient was advised to keep the lip of the incised meatus separated, to prevent union. August 22d he returned. The meatus was nicely healed, and admitted a No. 18 English sound. The patient continued his daily labor, that of blacksmithing, and said the operation gave him no inconvenience of any kind whatever. August 30th, electrolysis was repeated with a No. 23 French insulated bougie, which passed the stricture, with six cells in operation, in ten minutes.

September 20th.—Electrolysis with a No. 26 French insulated bougie, with a current of seven cells, passed the stricture in seven minutes.

October 1st.—A No. 28 French conical sound passed smoothly into the bladder. These operations caused no pain, no hemorrhage, and no soreness, and the patient went about his daily avocations as usual.

CASE II.—Mr. J. S——, aged twenty-eight, a photographer. Traumatic stricture of seven years. Two strictures: first, two inches from meatus, admits a No. 17 French; the second, at the membranous portion, only admits a No. 13 French. The second stricture is irritable, and the introduction of the instrument causes pain.

September 1st.—Electrolysis with a No. 17 French insulated bougie *in situ*, and nine cells in operation. The stricture was passed in fifteen minutes. Here the electrolysis on the irritable stricture acted as a sedative.

September 17th.—Electrolysis was repeated with a No. 23 French insulated bougie, with a current of eight cells. In twenty minutes the electrode bougie passed both strictures into the bladder. The irritability was not complained of this day.

September 30th.—Electrolysis again with a No. 26 French insulated bougie, seven cells working, and in thirteen minutes both strictures were dissolved.

October 15th.—A No. 17 (English) Van Buren's conical sound smoothly passed both strictures. Patient was discharged. This patient had previously been treated by the dilatation method, from which he got better, but during the last two years he neglected using his sounds and was worse than ever.

CASE III.—Mr. T. J. R——, aged thirty, a drygoods merchant. Two organic strictures. Had been operated on (February, 1881) by an eminent specialist of New York. He was better for several months, when his strictures again gave him trouble. He continued to pass his sounds—Nos. 18 and 19 English—as long as he could; but in the course of a year he was unable to pass his instruments.

June, 1882.—He came to me for treatment. It was with the most careful manipulations that I succeeded in passing a No. 16 Van Buren conical sound.

Electrolysis.—A No. 17 English insulated electrode bougie, with a current of eight cells, passed the first stricture (which was situated at one and seven-eighths inch from meatus) in eleven minutes, and in fourteen minutes more it passed the second stricture (at the membranous portion) on into the bladder.

July 4th.—Electrolysis was repeated with a No. 17 Van Buren conical sound. In seven minutes, with a current of six cells, the instrument passed into the bladder.

The electricity gave the patient such comfort that he came again, on July 8th, a distance of thirty miles to have the operation repeated. Electrolysis as on July 4th. In two minutes the sound passed into the bladder.

July 22d.—*Electrolysis.* A No. 18 Van Buren coni-

cal sound, with a current of ten cells, passed both strictures in six minutes.

July 28th.—Electrolysis with a current of four cells. A No. 19 Van Buren conical sound passed both strictures in three minutes.

August 11th.—A No. 21 Van Buren conical sound passed nicely into the bladder without the aid of electricity.

As the patient was also troubled with sexual neurasthenia, the séances were repeated every couple of weeks for a few months with a No. 18 conical sound, with a current of only two and three cells. A No. 21½ Van Buren conical sound now passed into the bladder, and patient was discharged.

I saw this patient a couple of weeks ago. He had not been troubled with stricture since. No. 21 conical sound passes easily into the bladder.

The cases already reported, together with twenty-eight other cases which I have treated successfully during the last two years, induces me to make this report in favor of the operation; and I feel assured that if it be conducted in accordance with directions above given every operator will be rewarded with success.

November, 1883.

ON THE INTRA-VENOUS INJECTION OF SALINE SOLUTIONS AS A SUBSTITUTE FOR TRANSFUSION OF BLOOD.[1]

By WILLIAM T. BULL, M.D.,
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The use of saline injections in Asiatic cholera in the early part of this century demonstrated the safety of such a procedure, and likewise its inefficiency in checking the career of that disease. Within a few years, however, this method has risen to the level of a life-saving measure, as a substitute for the transfusion of blood in conditions of acute anæmia and collapse. Of nineteen patients who have been subjected to the operation, when at the point of death, thirteen have entirely recovered; in three death was averted, but occurred later; and in the remainder only a temporary improvement was effected.

A recent essay[2] by Jennings, of London, has called attention to the advantages of these injections, and an editorial article in The Medical Record of October 20, 1883, gives a *résumé* of the subject, and speaks favorably of their employment. Several German writers have proven by experiments on animals the power of a saline solution to replace the blood, and demonstrated its advantage over the blood itself for that purpose.

Following Cohnheim, who was the first to practise the saline injection upon animals, Kronecker and Sander (*Berl. klin. Wochenschr.*, 1879, No. 52) experimented on two dogs in the following manner: They were bled from the carotid artery till the blood ceased to flow, and then a saline solution consisting of water, 1 litre; chloride of sodium, 6 grammes; sodic hydrate, .05 gramme, warmed to 100½° F., and in quantity equal in weight to the blood removed, was introduced into the external jugular vein. The animals recovered completely. This demonstrated the power of a saline solution injected into the veins to preserve life threatened by great loss of blood. Schwarz ("Habilitationsschr.," Halle a. d. S., 1881, quoted in the *Centralbl. f. Gynäkologie*, 1881, No. 20) then made numerous experiments on animals, bleeding them two-thirds of the normal quantity of blood, and injecting a six per cent. watery solution of chloride of sodium, made slightly alkaline by the addition of two drops of sodic hydrate. The same solution injected without bleeding proved to be harmless. On the strength of his observations he recommended the injection of saline solution as a substitute for the transfusion of blood in acute anæmia. Shortly after, Bischoff employed this method successfully in a woman with acute anæmia from separation of the placenta. The operation received further support from the experiments of Ott (*Virchow's Archiv*, Bd. xciii., 1 Heft), who tested the effects of injections (in dogs) of saline solutions of blood, both pure and defibrinated, and of blood-serum alone, and whose conclusions I quote from a paper by v. Hacker, in the *Wiener Med. Wochenschrift*, 1883, No. 37. "At the close of his interesting work he comes to the same conclusion as Schwarz, namely, that the danger from loss of blood, even to two-thirds of its whole volume, lies in the disturbed relationship between the calibre of the vessels and the quantity of the blood contained therein, and not in the diminished number of red blood-corpuscles;[1] and that this danger concerns the volume of the injected fluids also, it being a matter of indifference whether they be albuminous or containing blood-corpuscles or not, so long as they are not directly injurious. He proves, further, that the hydræmia arising from saline solutions, though greater than that from blood-transfusion, persists for a shorter time; and that the regeneration of the blood-corpuscles after transfusion of blood requires more than double the time required after the saline injection. The soluble or corpuscular elements that may be introduced into the vascular system undergo disintegration and excretion, and since those processes go on more slowly with all other fluids than with the salt solution, it follows that the *restitutio in integrum* after the injection of the salt solution takes place more quickly than after transfusion of blood. Since, moreover, there is no danger of the introduction of fibrine-ferment, and the solution is easily prepared, and the technique of the operation very simple, he recommends it in place of transfusion of blood in the human subject, in whom so great a loss of blood as two-thirds of its quantity is hardly to be observed."

A study of the cases in which the saline injections have been practised will convince one that they have really accomplished all that is claimed for them. In so simple an operation for a condition so familiar, I need not give more than the most essential details, so I shall avail myself of a table compiled by v. Hacker for ten of the cases (with some additions), supplemented by a note on one case from Dr. Halsted, of this city, and reports of six cases occurring in my own service, from operations done by my assistants, Dr. Jersey or Dr. Wilkie. In most cases the solution was that of Schwarz, consisting of distilled water, 1000.0 grms. (℥ xxxij.); common salt, 6.0 grms. (℥ jss.); liquor sodæ, gtt. ij., warmed to 100°–104° F. This was allowed to flow into a vein at the bend of the elbow, from a glass irrigator or funnel, from a height of three feet, through a rubber tube to which the canula was attached, or injected by means of a syringe into the radial artery (peripheral end). For this latter procedure, which once resulted in gangrene of the hand, Dr. Halsted substituted injection into the central end of the artery, with success. I have employed the solution as used by Szumann, and also recommended by Schwarz, consisting of water, ℥ xxxij.; common salt, ℥ jss.; carbonate of soda, grs. xv., and in place of the irrigator a tubulated bottle with rubber tubing and canula attached, and have had distilled water at my disposal in but one case, when a two per cent. salt solution was injected. The average duration of the injection has been fifteen minutes.

Dr. Jennings recommends this solution: chloride of sodium, 50 grs.; chloride of potassium, 3 grs.; sulphate of soda, 2.5 grs.; carbonate of soda, 2.5 grs.; phosphate of soda (Na_2Po_4) 2 grs.; dissolved in twenty ounces of water at 100° F., with the addition of 2 drachms of absolute alcohol, to be injected by means of a siphon of rubber tubing or a brass syringe.

[1] A paper read before the Practitioners' Society, New York, December 7, 1883.

[2] Transfusion: Its History, Indications, and Modes of Application. By Chas. Egerton Jennings, L.R.C.P. London: Baillière, Tindall & Cox. 1883.

[1] It was Golz (Ueber den Tonus der Gefässe, Virchow's Archiv, 29) who first established the vital importance of the vascular tension, *i.e.*, the pressure of the walls of the vessels on the blood circulating within them, to the continuation of the circulation, and v. Recklinghausen, in the last volume of the Deutsche Chirurgie (Handbuch der Allg. Pathologie des Kreislaufs u. der Ernährung), accepts the view that in acute anæmia the chief danger to life is from the diminished distention of the vessels with blood, the sinking of the blood-pressure, and the resulting cessation of circulation in the vital nerve-centres.

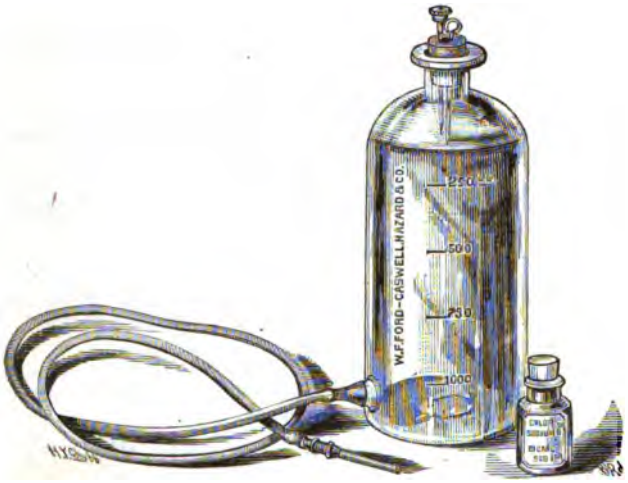
No.	Operator.	Condition for which the injection was made.	Quantity of solution; temperature; duration of operation; apparatus.	Vessel.	Result.	
1	Bischoff.	Anæmia following separation of placenta.	Forty ounces of Schwarz's solution in one hour; funnel and tubing.	Peripheral end of radial artery.	Recovery.	Centralblatt für Gynäk., 1881, No. 23.
2	Kûstner.	Anæmia after incomplete extirpation of uterine carcinoma.	Thirty-two ounces Schwarz's solution (temp., 100⅕° F.) in one hour by means of irrigator.	Peripheral end of radial artery.	Death; temporary improvement.	Centralblatt für Gynäk., 1882, No. 10.
3	Kocher.	Collapse from iodoform-poisoning.	Sixteen ounces, with syringe.	Peripheral end of radial artery.	Recovery.	Centralblatt für Chir., 1882, No. 15.
4	Kümmel.	Collapse from loss of blood during nephrectomy.	Thirty-two ounces (temp., 104° F.) in half an hour, with funnel and tubing.	Peripheral end of radial artery.	Death on following day from amyloid disease of other kidney.	Centralblatt für Chir., 1882, No. 19.
5	Kümmel.	Anæmia from secondary hemorrhage (excision of knee-joint).	Sixteen ounces Schwarz's solution, with glass syringe.	Peripheral end of radial artery.	Recovery; gangrene of hand.	Centralblatt für Chir., 1882, No. 19.
6	Schwarz.	Anæmia following bleeding from cancer of cervix and after operation.	Sixteen ounces.	Median vein at elbow.	Death in six days; septicæmia; temporary entire recovery from collapse.	Berl. Klin. Woch., 1882, No. 35.
7	Kûstner.	Anæmia from puerperal hemorrhage.	Forty ounces Schwarz's solution (temp., 104° F.) in fifteen minutes by means of irrigator.	Median vein at elbow	Death in three weeks from peritonitis; recovery complete temporarily.	Deutsche Med. Woch., 1883, No. 35.
8	Szumann.	Multiple injuries; resection of head of humerus. Forty-eight hours later, cerebral anæmia on sitting up for change of dressing.	Twenty-four ounces Schwarz's solution (warmed) in fifteen to twenty minutes, with irrigator.	Median vein at elbow.	Recovery.	Berl. Klin. Wochensch., 1883, No. 21.
9	Heyder.	Anæmia from extraction of placenta.	Twelve ounces Schwarz's solution (temp., 104° F.) in ten minutes by means of irrigator.	Median vein at elbow.	Recovery.	Centralblatt für Gynäk., 1883, No. 25.
10	v. Hacker.	Anæmia and collapse after bleeding from gastric ulcer.	Forty ounces Schwarz's solution (temp., 102° F.) in fifteen minutes; irrigator.	Med. basilic vein.	Death in three hours from fresh bleeding; temporary improvement.	Wien. Med. Wochensch., 1883, No. 37.
11	Jennings.	Anæmia from traumatism before labor.	Sixteen ounces alcoholized saline solution injected by syringe.	Vein at bend of elbow.	Recovery, and safe delivery one and a half hour later.	Lancet, 1882, ii., 436.
12	Coates.	Anæmia from post-partum hemorrhage.	Alcoholized saline fluid by means of Jennings' siphon.	Vein at bend of elbow.	Recovery.	Lancet, 1882, ii., 1110.
13	Bull.	Anæmia following extirpation of angioma at elbow. Bleeding stopped by ligature of brachial. Patient cold, unconscious; no radial pulse; carotid, 140.	Twelve ounces of a warm salt solution (two per cent. in distilled water) in ten minutes, with Collin's apparatus.	Median bas. vein.	Recovery. Fifteen minutes after injection, warm, conscious, radial pulse 120, of good volume.	N. Y. Hospital, August 23, 1883.
14	Jersey.	Collapse from illuminating gas-poisoning of twenty hours' duration. Venesection to eight ounces.	Eleven ounces Schwarz's solution (warmed) in ten minutes by irrigating bottle (see woodcut, p. 8).	Median bas. vein.	Recovery.]	Chambers Street Hospital, September 11, 1883.
15	Wilkie.	Collapse from illuminating gas-poisoning. Venesection to thirteen ounces.	Eleven ounces in fifteen minutes; irrigating bottle.	Median cephalic vein.	Recovery; septic lymphangitis from wound, with fever for a week.	Chambers Street Hospital, November 22, 1883.
16	Wilkie.	Collapse from illuminating gas-poisoning. Venesection to six ounces.	Nine ounces in ten minutes; irrigating bottle.	Median cephalic vein.	Recovery complete in twenty-four hours.	Chambers Street Hospital, November 22, 1883.
17	Bull.	Anæmia from bleeding in nephrectomy. Bleeding arrested by sponge-pressure.	About ten ounces of Schwarz's solution in fifteen minutes; irrigating bottle.	Median bas. vein.	Death after twelve hours; temporary improvement marked.	Dr. Weir's service, N. Y. Hospital.
18	Halsted.	Collapse twelve hours after compound fracture, with severe bleeding. Patient unconscious, cold; pulse barely perceptible.	Six and a half ounces of salt solution (℥j. to Oj.) injected in fifteen minutes.	Central end of radial artery.	After operation warm, conscious; pulse, 135, of good volume. Recovery; successful amputation later.	Roosevelt Hospital, September 15, 1882.
19	Jersey.	Anæmia from numerous incised wounds of neck, palm of hand, and fingers. Three hours after receipt of wounds and after auto-transfusion, stimulants, etc., temp., 97°; resp., 28, very shallow; no radial or temporal pulse; dizziness; vomiting; conscious; lips bloodless.	Twelve ounces of Schwarz's solution in ten or fifteen minutes, with irrigating bottle. After ℥ij. no change in pulse; temp., 98°; chill and vomiting. After ℥iv. no change in pulse; temp., 98°; lips less pale. After ℥viij. pulse perceptible; temp., 98½°; no more dizziness. After ℥xij. pulse, 96, full; resp., 28; temp., 99¼°; face and lips of good color; no vomiting; chills ceased.	Median cephalic vein.	Recovery. It was intended to inject more, but by a sudden movement of the patient, the canula was displaced.	Chambers Street Hospital, December 22, 1883.

Mr. Coates has also reported a case of post-partum hemorrhage, in which the injection of twenty-two ounces of water at 100° F. by Jennings' syphon was followed by recovery (*Lancet*, 1882, ii., 1110).

The "record" of this method of treatment justifies its further trial, and I hope that practitioners will be encouraged by the observations I have collected to adopt it. I have frequently heard men say, "I tried transfusion several times, but it did no good." But we all know that transfusion has saved the lives of many patients, and I believe that it would have saved the lives of many more had not men, in view of its risks and the circumstances attending it, deferred its performance till they were *sure* that their patients were going to die—till, in fact, they were moribund. Then the operation "did no good." Now the injection of the salt solution is safe and free from all the disadvantages of blood transfusion. We may hence urge its trial at a much earlier moment, and may expect a favorable result. It seems to me best, in the face of collapse from great loss of blood, to employ stimulants (hypodermically), warmth, and auto-transfu-

sion (by bandaging the extremities and raising the feet) for a limited time only, carefully noting the condition of the patient. If at the expiration of from fifteen to twenty minutes there was no decided improvement, I would proceed at once to inject the salt solution. In the cases of gas-poisoning I am sure that the use of the salt solution, to replace the blood drawn, accelerated the recovery, and I shall in future be disposed to bleed these patients more freely than I have hitherto done.

In order to have ready a vessel convenient for the operation, Mr. Ford, of Caswell, Hazard & Co., has made for me a tubulated bottle (graduated), with rubber tubing, to which a canula can be attached by means of a metallic coupling.



The salts are kept in a small phial. A trocar and also a blunt stylet are added, in order that one may puncture the vein with the former, or after opening it guide the canula into it on the latter instrument. An ordinary glass or metallic irrigator, or a funnel with tubing attached will do about as well. Let the solution (water, ℥ xxxij.; chloride of sodium, ʒ jss.; carbonate of soda, gr. xv.), warmed to 100° F., flow from a height of two or three feet in the course of fifteen or twenty minutes. The canula should be no larger than a medium-sized aspirator needle, one-sixteenth inch in diameter; the apparatus disinfected with three per cent. solution of carbolic acid, and antiseptic precautions observed in operating. Choose the arm in which a well-distended vein can be seen at the bend of the elbow, and failing to find one secure the radial artery, and inject the fluid into its central end.

A SPLINT FOR THE TREATMENT OF DEFORMITY AT THE KNEE-JOINT DUE TO THE REFLEX MUSCULAR SPASM OF CHRONIC OSTEITIS.

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FIG. 1 is from a photograph showing the splint and key. The splint consists of two bars of annealed steel joined in an antero-posterior hinge, the action of which is regulated by a section of a toothed wheel and an endless screw worked by a key, and two pieces of sheet steel lined with flannel and chamois, and rivetted to the bars.

To fit and apply the splint, mould the pieces of sheet steel, one to the anterior surface of the thigh, and the other to the anterior surface of the leg. With the aid of a pair of monkey-wrenches bend the bars so that they will lie along the anterior surface of the thigh and leg, and arch over the knee from a point an inch or an inch and a half above the patella to the tuberosity of the tibia, about an inch away from the surface of the knee, and with the hinge directly anterior to the nominal centre of motion of the knee-joint in the lower end of the femur; then rivet on the pieces of sheet steel and sew on the lining. Half a dozen holes should have been made in each bar, and numerous small ones about the borders of the sheet-steel pieces by the instrument

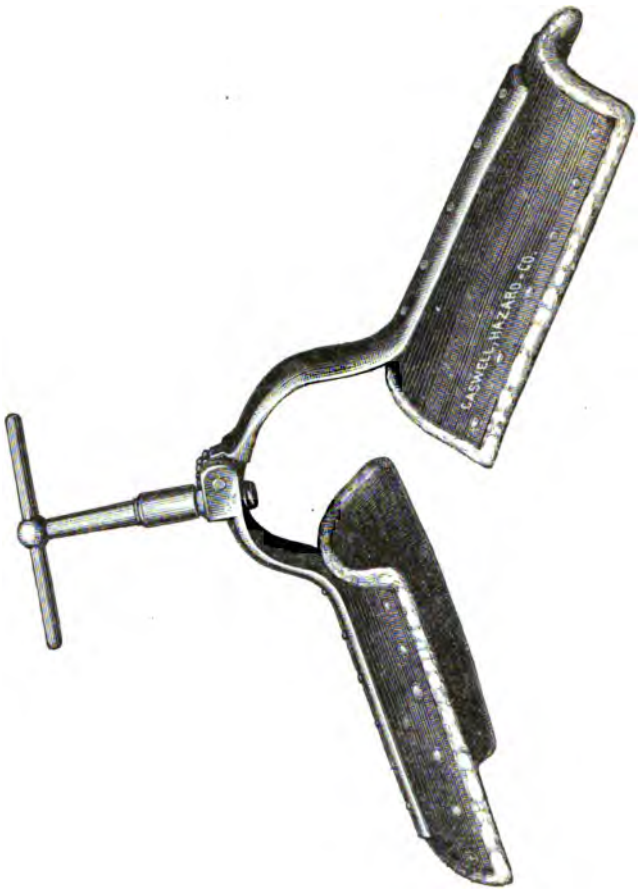

FIG. 1.

maker; but the holes in the sheet-steel pieces, through which the rivets pass, must be made by the surgeon at the time the brace is fitted, the rotation outward of the tibia in these cases necessitating this. The splint is then

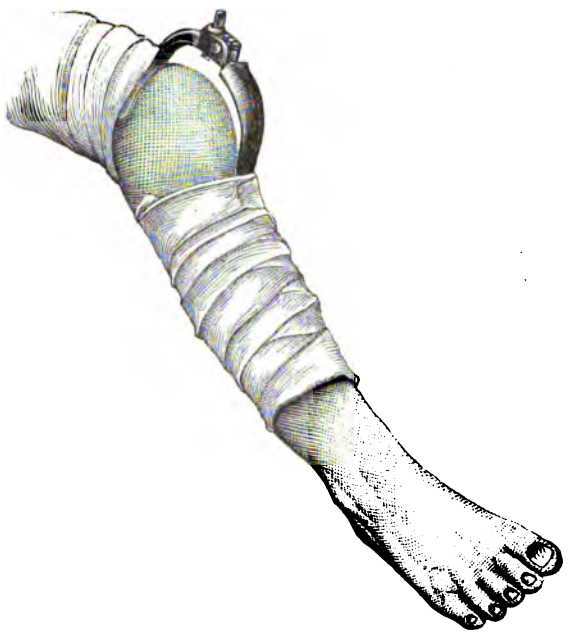

FIG. 2.

made fast to the leg by a roller bandage, as shown in Fig. 2, and extension made up to the point that is most agreeable to the patient.

It is believed by some that fixation of a joint suffering

from chronic disease is all that is necessary to relieve the pain, relax the muscular spasm and effect a cure, with more or less motion, the joint having been coaxed, as it were, into a good position. Others hold that to obtain these results it is necessary to add traction to fixation. My own belief is that fixation is all that is required in most cases, but that there are a few cases where traction is necessary to relieve pain. To this end I have placed the centre of motion of the splint anterior to the centre of motion of the joint. (See Fig. 3).

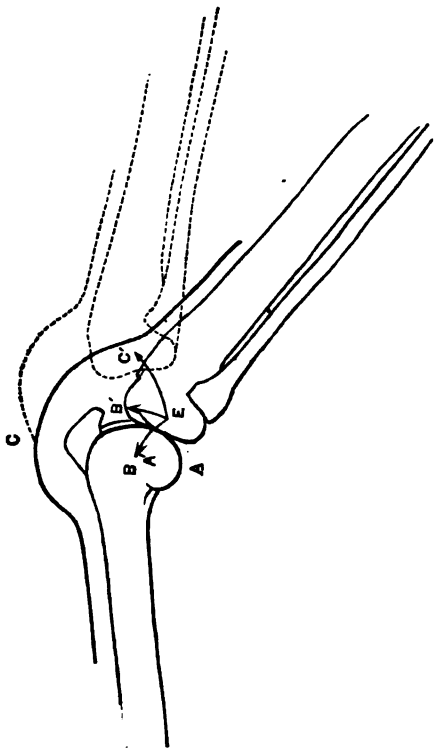

FIG. 3.

If the centre of motion (hinge) of the splint be placed posterior to the joint, as at A, and extension be made at any given point in the head of the tibia, as E, following the circumference of the circle of which A is the centre, will approach A′ and the joint surfaces will be crowded together. If the splint be constructed with the centre of motion opposite the centre of motion of the joint (hinge at the side of the knee) at B and extension be made, E will approach B′, the head of the tibia passing along the surface of the condyles, and there will be more or less pressure according to the degree of muscular spasm. But if the centre of motion of the splint be placed anterior to the joint at the point C a longer radius will be obtained, and if extension be made E will approach C′, and the head of the tibia tend to be separated from the condyles according to the degree of extension exerted.

This splint should be used only where there is deformity due to reflex muscular spasm; and while the joint is very sensitive, the patient should be kept quiet in bed; later on he may be allowed up, but must use a crutch. I have not yet seen any "short splint" that will protect a joint suffering from chronic joint disease from injurious concussion in walking. The patient weighing anywhere from thirty to one hundred and eighty pounds, and in walking the entire weight being thrown for a longer or shorter time on the affected side, the superficial tissues must be exceedingly tough if they bear a constant traction equal to this weight, whether made by a roller bandage or by strips of adhesive plaster. When the deformity has been overcome, I discard the short splint and use some form of apparatus that produces fixation, and at the same time acts as a perineal crutch. Fixation of the joint should be insisted upon as long as there is any reflex spasm. Anchylosis should not be feared, for it very rarely occurs—never, indeed, unless there has been excessive destruction of the bone. If it does occur, nothing that the surgeon could have done would have prevented it, for passive motion, by prolonging the inflammation, would tend to cause rather than hinder it.

107 WEST FIFTY-FOURTH STREET.

Reports of Hospitals.

HOSPITAL OF THE UNIVERSITY OF PENNSYLVANIA.

CLINIC OF WILLIAM PEPPER, M.D., LL.D.,

PROFESSOR OF CLINICAL MEDICINE IN THE UNIVERSITY OF PENNSYLVANIA.

SACCHARINE DIABETES.

GENTLEMEN: I shall to-day call your attention to this young woman, who is thirty-three years of age, has been married about six months, and who four months ago noticed the first symptom of her disease in an increasing failure of strength. She gives a history of considerable mental distress connected with family troubles. The weakness first manifested itself in fatigue following the slightest exertion.

She has during the past few months also observed these additional symptoms: increased appetite, great thirst, harsh skin, dry mouth, loss of flesh, and excessive urination. The bowels are costive, but the menses are regular. Although the appetite is excessive, her digestion is poor.

Here is a specimen of her urine. It is of a lemon-yellow hue. She has passed during the last twenty-four hours six quarts of urine, a little under two hundred ounces. This is a portion of that passed this morning. Its specific gravity is 1.036. If it were a mixture of all that is passed during the entire day, the specific gravity would probably be about 1.031; for, as you know, the morning urine is more concentrated than that of other periods of the twenty-four hours. I boil a small quantity of Fehling's solution in a test-tube, add to it a drop of this urine, and at once there is a characteristic precipitate, due to the presence of sugar and the formation of the suboxide of copper. The last sample that was tested contained 6.6 per cent. of sugar.

This is clearly a case of saccharine diabetes. It is not every case of true saccharine diabetes in which the symptoms are so unmistakable as in this young woman's case. There is here no room for any discussion as to the diagnosis. Sometimes there is difficulty in making the diagnosis.

What are the symptoms which are most constantly present in saccharine diabetes, and which will therefore be mentioned most frequently by the patient? I think that excessive urination is, as a rule, noticed sooner than any other symptom. Next, I should say that increasing failure of flesh and strength is most likely to attract the attention of the patient. The debility of diabetes is extreme and remarkable, more marked than can be accounted for by the amount of loss of flesh, and all the more remarkable when taken in connection with the fact that the patient is taking and apparently assimilating a large quantity of solid, substantial, nutritious food. The patient usually complains of some disturbance as regards thirst and appetite, and nearly always we have dry mouth; sticky secretions; absence of sweat; harsh, dry skin; constipation of the bowels, and sooner or later some digestive derangement. These latter symptoms mark the fully developed attack, but the early symptoms are, as I have said, increased frequency of urination, increasing debility and loss of flesh, and some aberration of appetite and thirst. In this patient all these symptoms are present. I have, however, seen cases in which the quantity of urine passed was not very excessive, perhaps not more than sixty or seventy ounces in the twenty-four

hours, and in which the frequency of micturition and the amount of urine passed did not attract the attention of the patients. They complained simply of an apparently causeless loss of strength, and with this, paleness and some loss of flesh. Thus saccharine diabetes again illustrates that practical rule to which I have so often directed your attention, that in all cases of chronic disease, whatever organ prominently attracts attention, examination of the urine for albumen and sugar is an essential part of your investigation of the case. If you neglect this rule, you will not only constantly overlook cases of latent Bright's disease (which is far more common than saccharine diabetes), but you will occasionally overlook well-marked cases of saccharine diabetes. I have repeatedly found sugar in the urine, when I have made the examination only because I was in the habit of so doing, or because I was searching for the cause of an otherwise inexplicable debility, the patient having complained of no symptom of saccharine diabetes.

While in most cases the symptoms of diabetes are present early and attract the attention of the patient, in other cases the symptoms are comparatively obscure. In these latter the symptom most frequently complained of is causeless debility, a giving out on the slightest exertion. With this debility there may be no loss of flesh. Other symptoms are distinctly referable to the nervous system. For instance, insomnia is occasionally quite troublesome and may appear very early in the case, even before excessive urination or loss of flesh is complained of. The insomnia will be associated with debility as though the patient had simply overworked himself. I have frequently had patients come to me stating that they had been hard pressed in their business, had a great deal on their minds, that they began to run down, that they could not do their ordinary work, and that they could not sleep at night. Apparently nothing but an ordinary history of overwork; nothing at all to attract attention to the urine; but if you make it a rule to examine the urine in every case, you will frequently find in such patients incipient saccharine diabetes.

Diabetes is comparatively rare in young persons. It is also more common in males than in females, because the former are more exposed to its causes. I have, however, seen it in young children. I am disposed to say, from my observation of the disease, that the earlier diabetes occurs the more serious it is. This is especially true if the one who develops it in early life gives a history of a strong tuberculous tendency in the family, or a history of diabetes in preceding generations—in the first case because the tendency to tubercular disease, which is always present in a diabetic patient, is apt to be more prominent; and in the second case, because it is then unusually intractable.

The danger in diabetes is that the progressive failure of nutrition, the progressive wasting, may continue until the patient grows so weak that any intercurrent disease will carry him off; that when the vitality, flesh, and temperature have been reduced to a certain point, the patient will contract phthisis, which in diabetics runs a rapid, latent, fatal course.

I have not yet spoken of symptoms connected with alterations of the circulation. These sometimes appear at an early period. This patient complains of some numbness along the outside of the thighs. In many cases this is exceedingly prominent. Patients will complain of numbness, a dead feeling, a feeling of pins and needles. It may be felt about the feet and ankles, or it may involve almost the entire limb. It is sometimes sufficient to disturb sleep. This I class among the nervous symptoms of diabetes, and think that it is due to alterations of vaso-motor control over the circulation of the extremities.

The causes of diabetes.—I have hinted at hereditary tendency. In the next place we find prominent among the causes of diabetes, emotional strain and nerve exhaustion, particularly emotional strain. Diabetes not rarely appears after a period of worry, anxiety, and prostration of the nervous system. There is no question as to the importance of this influence as a cause of diabetes. I suppose that it starts from the nervous system, and from the control of the nerves over the vegetative processes of life, over the functional activity of the stomach, liver, and pancreas—those great organs which are concerned with the primary assimilation of food, with its absorption, and with the removal of its *débris*.

Positive lesions of the nervous system, tumors at the base of the brain, lesions of the floor of the fourth ventricle, from specific disease or from traumatic causes, producing thickening, hardening, or pressure, will give rise to diabetes. In the same way functional impairment of the nervous system, as a result of long-continued, depressing, and exhausting influences, will produce diabetes.

Then we unquestionably find diabetes associated with diseases of the liver. You are all familiar with the glycogenic function of the liver, and I shall not dwell upon it. This organ has an important work in connection with the passage of saccharine matters through the body, and probably with their consumption in the body; thus you can readily see that any derangement of the liver is very likely to cause saccharine diabetes. I cannot say that clinical observation has connected diabetes with any one special form of hepatic disease. We have seen it in this hospital in connection with chronic catarrhal hepatitis and congestion, with fatty accumulation and congestion from intemperance, and with other forms of disease, and have seen it pass away when the hepatic disease was relieved by proper treatment.

In the same way we have had cases of diabetes where, after death, the pancreas has been found diseased. We have seen it associated with chronic inflammation of the pancreas, with chronic catarrh and the presence of calculi in the pancreatic ducts; and I have read the record of cases in which the glandular tissue appeared to have undergone degeneration. I therefore cannot say that it is associated with any one special disease of the pancreas.

Here, then, are various conditions in which diabetes may arise. It may be connected with simple functional derangement, or it may be associated with incurable organic disease.

Having traced the disease as nearly as possible to its source, we wish to make a prognosis. The following elements would influence us in making up our minds as to the probable result of the case and the probable effect of treatment: the youth of the patient, the duration of the disease, and the amount of emaciation. These are more important than the amount of sugar and urine. I have seen cases where there was a considerable quantity of urine and sugar do well under treatment; while, on the other hand, I have seen cases in which the sugar and urine were not abundant fail to respond to treatment. A moderate amount of urine and sugar may be associated with rapid emaciation and prostration. I say, then, in our prognosis we should be guided by the youth of the patient, the duration of the disease, the amount of loss of flesh, and then the presence or absence of organic disease, particularly of the nervous system, liver, pancreas, and lungs, and finally, taking into account the therapeutic test, the effect of change of diet upon the saccharine state of the urine.

This brings us to the question of treatment, which I shall consider after examining the patient to see if there are any other symptoms not mentioned in the history which she brings us.

The eyesight is not impaired. The pupils are equally movable. The tongue is glazed, pale, flabby, and marked by the teeth. There is no cough. There is no trace of jaundice. The pulse becomes rapid on rising. It is now 120 per minute. Auscultation of the heart-sounds shows that the first is deficient in the muscular element, but free from any murmur. There is no albumen in the urine, no œdema. She menstruates regularly.

I can find no evidence of organic disease. I am disposed to regard the diabetes in this case as purely the result of nervous influences—derangement of the nervous control over the functional activities of the liver and pancreas. We can, then, consider the treatment of this case without further reference to local conditions.

In diabetes there is a great loss of glucose. There is no use in giving to such patients free sugar with the idea of replacing that waste. This is, at first sight, a plausible theory, but it explodes on the first trial in practice. The more you give of sugar or starch, in any of their forms, the more sugar is excreted and the worse the patient becomes, and you recognize the fact that this drain cannot be replaced. Further, you find, if you prevent the ingestion of sugar and starch, that nearly all cases do better. You do this by giving albumen in its various forms, fatty articles, and gluten, that is, grain from which the starch has been washed; to these may be added succulent green vegetables not containing sugar or starch. The diet has to be varied according to the tastes of the individual, according to his circumstances in life, and according to the market which is accessible. Where money is plenty and the market good, you can make a very good bill of fare without allowing sugar or starch; but where you have to cater to the palate of a person in moderate circumstances, with a poor digestion, you will often find it a matter of no little difficulty, and will often have to break your rule and allow a small quantity of starch or sugar, in order to prevent the patient from becoming thoroughly disgusted with his food.

The exclusion of sugar and starch from the food should not be abrupt, but should be made gradually. The diet of a diabetic patient should in general terms be something like this:

Breakfast: a cup of tea, without milk or sugar, but with a sliced lemon in it, according to the Russian fashion; a couple of soft-boiled eggs, broiled chops, beefsteak, or fish; oysters must be excluded, as the liver, which makes up the chief bulk of the oyster, contains sugar; with these may be given some vegetable, as a raw tomato, a raw onion with vinegar, and a slice of gluten bread or a couple of gluten biscuits.

Between breakfast and dinner a little cream, with a teaspoonful or so of old rum or whiskey.

Dinner: meat, green vegetables, string-beans, tomatoes, cauliflower, onion, lettuce (the latter contains a little sugar, but not enough to do any harm), and again gluten bread.

The evening meal is similar to the breakfast. All these articles are inexpensive and can be easily procured.

Having made the change in the diet, you watch carefully to see the effect upon the excretion of urine and sugar. While doing this, I should advise you to give no medicines. If you have confidence in the patient's intelligence, explain to him what you are going to do, and that you wish to see what effect the change of diet will have upon his disease, for upon this will be based your opinion as to the further progress of the case. If you have not confidence in the patient, and think that a prescription is necessary for its moral effect, I should let it be a mere placebo—a little colored water. I should not complicate the case by the administration of such remedies as opium, codeia, bromide of potassium, ergot, and iron, until I had determined the effect of judicious regulation of the diet.

The exclusion of sugar and starch will be followed by one of three results.

1. The patient immediately gets wonderfully better; he sleeps better; urination is not so frequent; the quantity of urine goes down from perhaps 200 or 300 ounces to 80 or 70 ounces; and the sugar goes down to a mere trace. In other words, the regulation of the diet at once relieves the symptoms of diabetes. This is a most favorable effect.

2. In other cases the amount of urine may diminish, but still continue considerably above the normal quantity, perhaps one hundred and twenty ounces, the specific gravity keeps up, and it still contains a large proportion of sugar. Here is evidence of a profound alteration of the vital chemistry of the body. There are cases in which, although starch and sugar are cut off, still the patients will manufacture glucose in their bodies and the symptoms will continue. These patients will go down hill rapidly.

3. In a third clase of cases we find that the patient cannot take the restricted diet. They become disgusted with it and are anxiously asking for a change, or make changes without your permission; or if they take the food they do not digest it but suffer from dyspepsia.

In this latter class of cases I should advise a still further change in the diet before administering any drug. I should put him on a diet of skim-milk, pure and simple, beginning, as I have repeatedly urged upon you the importance of doing, by confining the patient to bed, by employing a sufficient amount of friction to maintain the circulation of the extremities, and by giving the milk in small quantities, at short intervals, beginning with a gill every two hours, or in diabetes where there is much thirst, a gill every hour or hour and a half. The quantity should be gradually increased until the patient takes half a pint every two or three hours. This skim-milk treatment of diabetes, when carefully introduced, not allowing the patient to exert himself while on a small quantity of milk, and permitting a gradual return to exercise as the amount of milk is increased, is sometimes followed by wonderful results. Patients who have not done well on solid food from which starch and sugar have been excluded will immediately improve on a diet of skim-milk, although the latter does contain a certain amount of sugar.

It is evident that there are very different relations of the economy to starch and sugar, and the needs of the economy in reference to these articles vary very much in different patients. Sometimes although a patient is passing sugar, and although theoretically you desire to cut off all saccharine substance, still you find by experiment that he does much better when allowed a little starch or sugar than when entirely deprived of them. He cannot assimilate the rest of his food without some sugar. Not only so, but in some cases you will find, although the urine is excessive in amount and contains sugar, and although when sugar and starch are cut off the urine decreases in amount and contains less sugar, still the patient's health fails and he grows worse; and it is only when you allow a mixed diet that he improves. I have seen stout, hearty-looking diabetics, who when starch and sugar was excluded from their diet ceased to pass sugar in the urine, but grew thin, pale, weak, and dyspeptic; but being put on a mixed diet they grew fat, well-looking, and although sugar reappeared in the urine, enjoyed good health, attained an advanced age, and finally died from some other disease having no relation to the diabetes.

While I do not wish you to lose sight of the governing principle that starch and sugar should be excluded from the diet of diabetics, I wish to impress upon you that no hard and fast rule, applying to every case, can be made. Each case must be studied carefully and treated according to its own indications. I say gradually reduce the quantity of starch and sugar, and watch the effect. If the patient does well and the symptom diabetes improves, you know that you are on the right track and can push on boldly. If, however, you find that this diet does not answer, try skim-milk, and if that fails you must allow some starch or sugar.

In all cases, probably, certain drugs are desirable. They are less necessary in those cases which are benefited by diet. I have seen some cases entirely cured by the skim-milk treatment; the patient not only being cured of the symptom diabetes, but of the disease. I have cured not a few diabetics by the use of koumiss. This is

milk in which the sugar has, by fermentation, been converted into alcohol, water, and carbonic acid, the latter being retained. This is a useful diet and is easily made.

Drugs are most useful where change of diet produces the least effect upon the urine. We cannot, as a rule, determine the real essential lesion in any given case of diabetes, but have to address our drugs to this or that indication. Sometimes we can find the essential disease. A patient who has had specific disease begins to have diabetes and exhibit symptoms of pressure at the base of the brain from meningitis or the formation of a gumma; in such a case we find that courses of iodide of potassium and mercury remove both the diabetes and the other symptoms. Where, as here, we fail to find any such local disease, and have to consider the affection as depending upon some not clearly defined alteration of the nervous control over this peculiar function of the liver, stomach, and pancreas, we can address our treatment only to these indications: 1. Building up the general health. 2. Lessening the excessive flow of urine. 3. Relieving the distress resulting from craving appetite and thirst, restlessness and sleeplessness; and 4. Relieving the dyspeptic disturbances.

You see that this is a purely symptomatical treatment and not based upon a comprehension of the essential nature of the disease. Hence you will find that during past centuries thousands of drugs have been recommended for the treatment of diabetes, and that hundreds are still recommended, but none of these are applicable to all cases.

The building up of the patient's constitution, the improvement of the tone of the nervous system, and the general condition of the functions are essential in the treatment of diabetes. These require close attention to hygiene, a careful regulation of the habits of life, the securing of rest to the mind and the body, removal from depressing influences, and the use of general nutrients, iron, and cod-liver oil.

To lessen the flow of urine, a large number of drugs have been recommended. Of these, ergot, codeia, opium, iron, and bromide of potassium, in the order mentioned, may be said to rank as the most powerful and eligible. They lessen the excessive discharge of urine, and by so doing they lessen the thirst and give the patient a better chance to rest at night. Of these, those which are also sedative, as codeia and opium, do more. They act directly upon the nervous system; they control restlessness; they relieve insomnia; they relieve those distressing nervous symptoms, which are not rarely present, connected with derangement of the circulation in the extremities. They relieve the craving of the stomach; they lessen the amount of urine passed, and the frequency of the calls to urinate.

Opium has cured some cases, but is, I think, less desirable than codeia. The latter is not so likely to produce the opium habit, is less constipating, and is not so apt to disturb gastric digestion. I consider it a valuable remedy in the treatment of diabetes. I have already mentioned iron, which is not incompatible with any of the drugs which I have mentioned.

Bromide of potassium has been vaunted as a cure for diabetes, but it, of course, occupies no such position. It is of use in relieving the nervous symptoms, and indirectly lessens the excessive flow of urine. In large doses it is depressing to the general nutrition, and is not well tolerated by many persons. It should be used with caution and only where it is well received.

The cure of digestive disturbances. If the use of any of the drugs which I have mentioned is attended with derangement of the digestion, they had better be discontinued. The primary assimilation of food is a matter of the greatest importance in diabetes. I should much rather depend upon diet and the use of the mineral acids, bitter tonics, pepsin, and pancreatin to improve primary digestion and assimilation, and let all other remedies go, than to use any of them and have the gastric digestion continue feeble or deranged. In this case I shall first regulate the diet, and if necessary put her on the use of skim-milk. After noting the effect of diet, I shall place her upon the use of codeia, giving cod-liver oil at the same time. I shall give codeia in such doses as the intensity of the symptoms indicate, but it will not be given until the digestion is in good order.

I shall have her weighed to-day, and in one month shall show you the effect of this treatment upon her weight, general symptoms, special symptoms of the disease, the amount of urine, and the proportion of sugar which it contains.

Progress of Medical Science.

Subcutaneous Stretching of the Sciatic Nerve.—Owing to the unfavorable results obtained by operative nerve-stretching for the relief of locomotor ataxia in patients whose strength is greatly reduced, Dr. Lépine determined to try the effect of the very moderate amount of stretching produced by the subcutaneous method (*Comptes Rendus de la Société de Biologie*, No. 10, 1883). This method consists in strongly flexing the thigh while the knee is retained in full extension. The immediate effects of the procedure are a slight temporary loss of sensibility in the sole of the foot and an elevation of temperature in the leg of a fraction of a degree lasting for a few hours. The curative effect is very doubtful. The most that Dr. Lépine was able to say was that the procedure could do no harm.

In the *Annali Universali di Med. e Chir.*, Part 1, 1883, Dr. Fiorani relates a case of rebellious sciatica cured by this method. The patient, a woman forty-nine years of age, had suffered for five months from a very severe sciatica of rheumatic origin in the right leg, which had resisted the most varied treatment. Upon admission to hospital the patient was unable to walk, and complained of excruciating pains following the course of the right sciatic nerve, which allowed her no rest day or night. The first attempt at stretching of the nerve was made while the patient lay in bed, but full flexion of the thigh could not be made, owing to the striking of the foot against the head-board. Nevertheless, considerable improvement followed, but lasted only two days. The next attempt was made upon the operating table while the patient was under the influence of an anæsthetic. As the heel was brought up to a level with the head a cracking sound was heard as if something were tearing. The leg was held thus in extreme flexion for several seconds. After the operation the sciatic pains had entirely disappeared, but the patient had a painful sensation along the posterior part of the thigh, and soon an ecchymosis appeared at the flexure of the knee, extending above and below for some distance. This passed away under appropriate treatment, and in ten days the patient left the hospital, complaining only of a slight pain, increased by locomotion. This also disappeared in the course of time, and at the end of two months the patient was entirely free from pain.

Some of the Toxic Effects of Salicylic Acid.—Dr. Max Baruch relates in the *Berliner Klinische Wochenschrift*, No. 23, 1883, the case of a lady for whom, on account of slight arthritic pains of a subacute character and unaccompanied with fever, salicylate of soda in doses of fifteen grains every two hours was ordered. Shortly after taking the second dose she had ringing in the ears, dimness of vision, as if a veil were before the eyes, and a tired feeling, and soon was seized with a very severe chill lasting for an hour and a half, during which the temperature rose to nearly 105° in the axilla. After the chill the temperature fell one or two degrees, and about an hour later the patient broke out into a profuse perspiration. During this stage, lasting six or eight hours, the

temperature gradually fell to the normal. Dr. Baruch regarded this attack as one of intermittent fever, the more confidently as the patient lived in a malarious district. The only thing about it that was not perfectly typical was the short duration of the first and second stages. In order to satisfy himself concerning the diagnosis he withheld quinine, waiting for the second attack, but it did not come. About five weeks later, on account of a return of the joint pains, salicylate of soda was again ordered in the same doses. Soon after taking the second dose the patient had another attack of chills and fever exactly like the former one, except that it was, if possible, more severe. Another case similar to this, in which, however, the symptoms were less marked, was related to the author about the same time. In previously reported cases of poisoning by salicylic acid the symptoms were very different in character, and were caused by much larger doses of the drug. The author explains his case by the theory that even small doses of salicylic acid may so act upon the caloric centres as to cause a paralysis of the temperature depressors. He does not regard the sweating as caused directly by the salicylic acid, but rather by an irritation of the perspiratory centres from increased temperature.

In the *Centralblatt für Klinische Medicin*, No. 37, 1883, Dr. M. Loeb, remarking upon this case, states that similar febrile paroxysms not infrequently follow upon the hypodermic injection of morphine. He does not hold the morphine responsible for these attacks, however, but thinks that they are due to the presence of certain forms of bacteria in the solution used. He relates the following case of renal hemorrhage consecutive to the administration of salicylic acid. The patient, a man twenty-three years of age, was suffering from acute articular rheumatism, and took nearly half an ounce of salicylic acid in the course of twenty-four hours. At the end of that time the urine was found to be bloody and contained a large amount of albumen and numerous casts and blood-corpuscles, but became normal again as soon as the drug was discontinued. Dr. Gerhardt stated to the author that he had also observed a renal hemorrhage in several cases following upon the exhibition of salicylic acid. Dr. Loeb thinks that this action of the salicylates upon the kidneys is deserving of special study, owing to the fact that this remedy has recently been recommended very strongly as the best antipyretic in scarlet fever, a disease in which renal irritants ought most scrupulously to be avoided.

The Treatment of Diphtheria by Blue Gum Steam.—Dr. Murray Gibbes, reports thirty-seven cases of diphtheria claimed to have been cured by saturating the atmosphere of the room in which the patient was placed with the vapor of the eucalyptus globulus. The atmosphere must be constantly loaded with steam, and the vapor of the eucalyptus is obtained by pouring boiling water on the dried leaves. To assist nature in throwing off the membrane, Dr. Gibbes uses a solution of steel and glycerine, with which he brushes the throat when the membrane is loose enough to come away easily. Dr. Mosler, in 1879, spoke strongly of the value of eucalyptus inhalations in severe cases of diphtheria.—*London Medical Record*, November 15, 1883.

Abdominal Aneurism opening into the Duodenum.—Dr. Coupland reports the case of a laborer, aged seventy-two, who was admitted into Middlesex Hospital in a state of collapse. Under stimulants and warmth he rallied from the state of collapse, but during the first few hours the bowels were twice opened, and on each occasion some black, tarry blood was passed. There was no recurrence of this hemorrhage until just before his death, twelve days later. Post-mortem examination showed the stomach to be full of a dark brownish-black fluid; the mucous membrane was intact. The duodenum contained a similar fluid distinctly blood-stained. Thrusting forward the duodenum and head of the pancreas, a globular tumor about the size of an orange could be felt. On laying open the duodenum, four small openings were seen in its inner wall. The tumor and aorta were removed together with the duodenum *in situ*. On laying open the aorta from behind, the orifice of the sac of an aneurism was found immediately below the origin of the renal arteries. During life, the diagnosis between aneurism and tumor of the pancreas was hard to establish.—*London Medical Record*, November 15, 1883.

Primary Sarcoma of the Pleura.—Mr. R. W. Greenish (*Journal of Anatomy and Physiology*) records a case of primary sarcoma of the pleura in a woman, aged fifty-four. The left side of the chest was full of fluid, and the pleura was covered more or less thickly with nodules, some sessile, some pedunculated, all pigmented on their surfaces, hard, and cartilaginous to the feel, and semi-translucent on section. Under the microscope they presented the appearance of alveolar sarcoma. He has also found a number of similar cases reported by various authors. In all the growth formed a thick layer of cartilaginous hardness one to several centimetres thick. In two cases the right side was affected, in six the left, and in three both sides. In six cases it is stated to have been more advanced in the costal pleura than elsewhere. Lépine's case was aged ten, all the others were over thirty-five. Birch-Hirschfeld, Böhme, Eppinger, and Schultz describe the growth as starting from the endothelium of the lymphatics, but Greenish finds no evidence of this, and believes the cells to be derived from the ordinary connective-tissue cells.

Three Infectious Diseases in the Same Individual.—Dr. Prior reports (*Deutsche Med. Wochenschrift*) a case in which three different infectious diseases occurred in the same individual in the space of one month. Three children were attended on November 18th, for well-marked scarlatina, with a temperature of 104° Fahr., copious eruption, and some difficulty of swallowing. Desquamation began on November 21st, and proceeded normally, only one child having slight renal symptoms, until, on December 1st, the two younger were attacked with rigors, headache, and malaise, and on the following day were covered with a thick eruption of varicella. On December 3d, in the absence of the mother, a child from the next room, intercourse with which had been carefully avoided on account of measles, was found playing with the children, and showed signs of measles next day. The first patients were now carefully watched, and on December 13th the temperature was found to be raised, with photophobia and slight coryza; on the 15th the eruption of morbilli appeared. Its course was protracted, and caused some anxiety; but, finally, the children recovered. The cases show how the two poisons of scarlatina and varicella may be in the organism at the same time, and how measles may be conveyed by a two hours' intercourse in the prodromal stage, while the crusts of varicella are still present, the measles showing itself as soon as ten days later.

Transmission of Yellow Fever by Mosquitoes.—At the conclusion of a long article on the nature and pathogeny of yellow fever (*Cronica Medico-quirurgica de la Habana*, No. 4, 1883) Dr. Carlos Finlay maintains that it may be communicated from one individual to another through the agency of mosquitoes. He has seen under the microscope spores and filaments of a particular nature on the sting of one of these insects that had just bitten a patient suffering from yellow fever, and thinks that the germs may undoubtedly be introduced into a healthy individual by the bite of a mosquito. He recalls the fact that these insects were remarkably numerous in Philadelphia at the time of the great yellow fever epidemic in 1797, and states also that the same conditions of temperature are necessary for the life of the mosquito as for the existence and spread of yellow fever.

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THE PREVENTION AND TREATMENT OF PUERPERAL FEVER.

THE marked attention which has recently been devoted to the subject of "puerperal fever, and the management of childbed," would indicate that obstetricians are anxiously seeking the solution of the problem, how to reduce puerperal mortality.

In our city societies the theme has certainly been prolific in the production of essays and discussions. Drs. Tauszky, Wylie, and Garrigues before the County Medical Society, and Drs. Thomas and Partridge in the Academy, have given the profession ample opportunity for discussion. In view of the fact that we are promised another debate in February, it may be profitable to review the work already done and, so to speak, take our bearings.

Up to the present time the chief points in the etiology and pathology of the disease have been but lightly touched, the authors and speakers being actuated by eagerness to grapple with the more inviting subject of treatment.

The views of Semmelweis and Hervieux, as more recently summarized by Lusk, that "puerperal fever is due, as a rule, to the septic inoculation of the wounds which result from the separation of the decidua and the passage of the child through the genital canal," have been acquiesced in almost unanimously, and thus by one grand swoop have been demolished the various theories of a disease which has been the theme of enormous volumes and endless discussions in the past. To-day we stand in the presence of an enemy whose strength we assume to have measured. There is an abiding faith in the minds of the best obstetricians that we have to deal with certain micro-organisms whose vulnerability by certain germicides will enable us to vanquish the foe.

While practically it would appear unimportant how these organisms obtain admission into the system, it would be wise to proceed more cautiously in the study of this subject, in order that scientific precision be not sacrificed to the practical advantages presented by the idea of a unity of infection.

It is to be hoped that in the discussion which is now pending at the Academy, the subject of pathology and etiology will be more fully elaborated. We would rejoice to know whether we are to regard every febrile movement not otherwise explicable, and every parametritis, as the direct outcome of septic processes, or whether we may not classify the puerperal pyrexiæ into infectious and non-infectious. It would also contribute vastly to the elucidation of this important subject, if clinical facts could be brought forward to establish a differential diagnosis between pure "traumatic" childbed pyrexiæ, arising from decomposition of coagula and tissue detritus at the placental site, and other types due to purely septic influences, enabling us to distinguish the embolic or phlebitic form of puerperal fever, from the lymphatic or phlegmonous which owe their origin and malignity to rapid multiplication of the septic poison.

The dominant idea of our essayists and their hearers appears to be that, as puerperal fever is the result of a trauma inflicted by the parturient process, the principles of modern wound treatment are applicable to its management.

Dr. Wylie desires to "treat the genital canal after labor as a punctured wound." Dr. Thomas goes even further, in viewing every parturient woman in the light of one who passes through a capital operation. Hence we observe a remarkable unanimity in the curative and prophylactic measures proposed by these gentlemen, and dwelt upon with special emphasis by our "silver-tongued" gynecologist. But while the vigorous curative measures received general assent in all the discussions, it was not so with the "preventive measures." The latter were not referred to in detail by some of the speakers, and were warmly criticised by others. In this connection more light is needed.

How far shall the recommendations of the eloquent speaker at the Academy be adopted? Shall general practitioners everywhere religiously obey the instructions given, for instance, by Dr. Thomas in his "Prophylactic Measures?"

This is the question at issue now.

In the discussion of the papers of Drs. Tauszky, Wylie, and Thomas, not a word of dissent was offered. In the debate upon Dr. Garrigues' paper, the first note of opposition came from a general practitioner. Dr. Baruch "offered his unqualified condemnation" of prophylactic injections during a normal puerperal period; basing his objections on his own experience before and since their adoption. He claims that in fifteen cases, in which a three per cent. vaginal injection had been used twice daily, he has observed six cases of undoubted septic fever. He formulated his objections on the following grounds: Disturbance of the puerpera twice a day must interfere with much needed rest (local and general); clots upon large vessels may be disturbed, opening avenues for auto-infection; the healing process of the traumatic surfaces in the vagina and cervix is interrupted; entrance of fluid into the uterus may produce shock, or collapse, or fever; and lastly, septic matter may be conveyed by the syringe in the hands of careless nurses into the uterus and vagina.

He claimed an entire immunity from deaths due to septic infection in nine hundred cases in which injections had been resorted to for cause only.

Dr. Garrish cited an experience of four thousand labor cases, with a mortality of two from puerperal fever, under strict cleanliness alone.

Dr. White claimed priority for Bellevue Hospital in the adoption of vaginal injections, but, as remarked by Dr.

Garrish, the great childbed mortality at Bellevue would render this priority a questionable virtue. Dr. White offered the result of two thousand cases of labor without a death from puerperal fever, in spite of the fact that among his private patients his order to use vaginal injections after the second day was "more honored in the breach than in the observance."

In the discussion of Dr. Partridge's excellent paper, Dr. Baruch presented an additional argument against prophylactic injections after normal labor by drawing an analogy between the stump after amputation and the wounded utero-vaginal surfaces after labor. He regarded it as the height of inconsistency to apply on the one hand (and correctly) the same surgical principles to both, and on the other to adopt entirely opposite measures in the execution of these principles. Rest, drainage, and antiseptic dressings are the arch upon which rests modern surgical treatment. Rest is the keystone of that arch; without drainage and absorbent antiseptic dressings, however, long rest would be impossible.

By scrupulous cleanliness and antisepsis before operation, the surgeon prepares an aseptic wound; after operation he again cleanses the wounded surface by antiseptic irrigation, introduces a drainage-tube, seals the lips of the wound and applies antiseptic absorbent dressings, with the hope that healing will be far advanced ere the latter are removed. He does not inject the stump daily unless there be decomposition or other cause within the wound. Drs. Wylie and Thomas and their followers would use all antiseptic precaution, without allowing the wounded surfaces to rest from these well-meant efforts. Dr. Baruch would follow the example of the surgeon by using the precautionary measures recommended by these gentlemen, without injections, which he deems not only useless but harmful, and would depend upon the natural configuration of the vagina for drainage. Dr. Garrigues' plan marks a decided advance, inasmuch as he follows the cardinal principles adopted by the modern surgeon. He applies an antiseptic absorbent napkin, and "no vaginal injections are given, except in the rare cases in which the lochia become offensive. By the effective antisepsis at the entrance, preventive injections become superfluous." Dr. Garrish has "used carbolic acid regularly for eight years, for hand instruments and for vaginal injections, twice daily during the first week," both in hospital and private practice. In spite of his antiseptic measures, at the Maternity Hospital his results were extremely unfavorable. From October, 1882, to April, 1883, 193 deliveries furnished 39 cases of inflammatory puerperal diseases. Since his adoption of the new treatment he has observed 97 deliveries with 5 cases of inflammatory puerperal disease, and 1 case of rise of temperature only. "As if by magic all trouble has disappeared." This lack of fever he can only explain by the perfectly aseptic condition of the genitals, and "in this respect it seems that our results are better than those observed elsewhere." He mentions in comparison Kehrer's less favorable, yet good results. But he fails to perceive that Kehrer is an enthusiastic advocate of injections, and himself reports five cases in which fever continued so long as injections were resorted to, and ceased upon their discontinuance.

To the unbiassed mind it is clear as day that Dr. Garrish's remarkable success is due to non-interference with the traumatic utero-vaginal tract after completion of labor, rather than to the antiseptic napkin.

Clinical data must be brought to the elucidation of this subject. Thus far the advocates of prophylactic injections have brought no statistical data in support of their view, except Dr. Wylie, who reports thirty-six cases treated in Bellevue Hospital, all of which had rise of temperature, not above 102°. How such a result proves the value of his antiseptic injections is not apparent.

We await with interest the marshalling of these potent elements of logic in the forthcoming discussions. On the other hand, clinical data are not wanting to sustain the value of abstention from injections in normal conditions after labor.

In a brief report on "German Lying-in Institutions," by Dr. Lombard (*Boston Medical and Surgical Journal*, May 31, 1883), the statistical evidence in favor of antiseptic cleanliness is overwhelming. Before Semmelweis introduced his order for disinfection of hands, instruments, etc., with chloride of lime, the mortality from puerperal fever in Vienna averaged 6.2 per cent. in forty-five years, reaching fifteen per cent. in 1842. Since that time it has never risen above two per cent., except from 1852 to 1857, when disinfection was abandoned and the death-rate rose to nine per cent. More recently it has been reduced to 0.75 per cent.

At Prague, owing to the improved hygienic condition of the new hospital and more rigid antiseptic precautions, the death-rate has been reduced from an average of 6.67 per cent. to an average of 0.77 per cent.; the rate being during the past two years 0.24 per cent. The treatment is simply the utmost precaution to prevent infection before, during, and after labor, iodoform and carbolized injections only being used at the lying-in period, in abnormal cases, as when decomposition of lochia, etc., indicates them. In Prague nearly the same course is pursued, "the patient is not disturbed until the fourth day," and then only if it be necessary to remove stitches, etc.

Breisky is totally opposed to all prophylactic injections.

Dr. Thomas' eloquent arraignment of the evils of uterine injections for prophylaxis is a valuable outcome of the present agitation of this subject. Intra-uterine injections for prophylaxis have been abandoned in Germany for several years, Max Rungl having shown even that an epidemic of puerperal fever was spread by them at the Charité.

If uterine injections are so pernicious as to be anathematized with so much vigor, it is reasonable to suppose that injections which are made into the wounded cavity of the vagina and upon the wounded cervix uteri, may be less harmful only in degree.

How much damage may really be done by vaginal injections is demonstrated by the experience of the general practitioner quoted above, an experience which has been verified by a canvass of opinions which we have recently made among a few gentlemen in large obstetric practice and the numerical data of which we may publish at a future time.

We hope to receive further information on this subject from discussions in the journals and societies. But we need exact data, not generalizations from memory.

This aspect of the question of prophylaxis is of extreme importance, in view of the fact, that, if a practitioner should neglect the now fashionable antiseptic vaginal injections and septic troubles ensue, blame may be attached to him. If, therefore, it can be established that all prophylactic injections are not only worthless, but frequently harmful, much discomfort, pain, and danger to puerperal women may be prevented. Thus far we find in the recent discussions cause for doubting the propriety of these injections when the puerperal process is proceeding normally.

Dr. Jewett stated, in speaking upon Dr. Partridge's paper, that while he has always been an ardent advocate of antisepsis in midwifery, his opinion of antiseptic injections after labor had been somewhat shaken by an experiment now in progress at the Long Island Hospital. Every other case was injected, and there appeared no difference in the result; abnormal temperature records occurred in both sets of cases alike.

Dr. Brown condemned the practice in vigorous language at the meeting of the Obstetric Section.

Statistical evidence, therefore, appears to be in favor of the abolition of this practice. The discussion has shown that this evidence, small as are the actual figures, is amply sustained by the fact that it is in entire accord with modern surgical principles.

Dr. Garrigues' method, although the most effective proposed in our societies, is not yet quite perfect.

Wounds and operations in mucous cavities have long been a stumbling-block to the execution of strict antisepsis, because carbolic acid and other germicides are too volatile, and their application to such surfaces is impracticable.

As an illustration we will cite Billroth's experience. From 1860 to 1880 he amputated the tongue one hundred and nineteen times, but, in spite of the greatest care, the most energetic cleansing of the parts by antiseptic syringing, etc., twenty-six cases died from septic infection. In 1880–81 he operated on the tongue eighteen times, with recovery in every instance. This grand result was obtained by packing the wound with iodoform gauze and allowing it to remain undisturbed from five to seven days. The same objections which hold against antiseptic syringing of the mouth in these cases would apply to this procedure in the vagina.

Aside from the well-known fact that the three per cent. solution (recommended by all our essayists and their followers) does not kill the spores of bacteria at all, and is therefore perfectly worthless as a germicide, the intermittent cleansing of the vagina does not furnish a useful antisepsis, but does, as in Billroth's tongue cases, serve to disturb the healing.

Ehrendorfer has advanced the preventive and curative treatment of puerperal septicæmia to the precise status of modern surgery. The greatest care is taken by antiseptics and cleanliness to prevent infection, but normal puerperæ are left undisturbed. Only cases requiring manual assistance, or in which decomposition is threatened or takes place, are treated prophylactically. After abnormal labor the uterus is syringed with a two per cent. carbolized solution, a pencil of ninety to one hundred and twenty grains iodoform, made with starch and glycerine, is introduced into the uterus and renewed (after again injecting) only when offensive or purulent discharge occurs or fever ensues. The results are remarkable, because, as we opine, the cardinal principle of surgery, rest, is constantly kept in view, while antisepsis in other respects is observed.

M. CHARCOT'S CREED.

The recent election of Professor Charcot to membership in the Academy of Sciences was signalized by a banquet tendered to him by a large number of his pupils and admirers. At the close of the dinner a highly eulogistic speech was made by Dr. Bouchard, to which Charcot responded in a speech which, though brief, was a pertinent and striking one. Acknowledging the honor paid to him by those present, he referred to the very great share which his pupils had done in accomplishing the scientific work associated with his name. They had worked harmoniously and successfully together, because, he said, they had followed constantly and conscientiously the scientific principles and methods of the great masters of the French school.

Charcot represents and defends scientific clinical medicine as opposed to empiricism, to the entirely "practical" men. Perhaps he felt in his speech that he was advocating something which would arouse antagonism from this class. For he continued:

"If I believe firmly that there exists in medicine a domain which pertains entirely to the physician, which he alone can cultivate and fructify, and which must necessarily be closed to the physiologist who, systematically confined to his laboratory, disdains the instruction of the hospital wards, I no less firmly believe that the free intervention of the anatomical and physiological sciences in the affairs of medicine is an essential condition to its progress. I believe that practical medicine is not a real autonomy; that to live it must borrow; that without a constant scientific renovation it would soon become a dull routine. I think, finally, that as regards the qualities of quick-sightedness, ingenuity, and practical skill, which all have to be perfected by use, and are not bestowed in completeness by nature, these are as much needed by the pathologist as by the clinician. This, very briefly, is my *credo*. I have always held to it, and I must always continue to do so."

Charcot has stated most happily the relation between clinical medicine and the medical sciences. He has assured us also that for real scientific success the "practical" qualities are as much needed as for success in any other branch of work. His creed is a good one, and it has certainly been fruitful and stimulating at La Salpétrière. It has also not only a general but a particular application. Every doctor who does not by study and observation infuse some new life into his daily work will soon find it true that clinical medicine is not a real autonomy, and that without constantly borrowing it soon loses vitality.

THE TREATMENT OF DIPHTHERIA BY CYANIDE OF MERCURY.

It is a circumstance often commented upon that the more intractable a disease is to therapeutic measures, the greater is the number of alleged specifics for its cure. Perhaps in few diseases is this exemplified better than in diphtheria. A bare enumeration of the many drugs and

modes of treatment proposed as curative of this affection would be as tiresome as it would be profitless. However, we may be allowed to briefly refer to a drug that has recently again claimed attention, and which may possibly be found worthy of a further and more extended trial.

In a communication in the *Allgemeine Medicinische Central-Zeitung* of September 22, 1883, Dr. Selldén, of Stockholm, relates his method of treatment by the cyanide of mercury. He employs a solution of $\frac{1}{10}$ grain to the ounce, of which, to older children and adults, he gives a teaspoonful every hour or half-hour day and night. The patient also gargles frequently with the solution. In cases of threatened heart-failure, he gives, in addition, some Tokay wine, and in desperate cases he adds to this a tablespoonful of oil of turpentine in a cup of milk. Great stress is laid upon the treatment during convalescence—fresh air, a nourishing diet, and strict confinement to bed being insisted upon. Of sixty-one cases of contagious diphtheria treated by this method, Dr. Selldén lost but three. Several years ago, Dr. Erichsen, of St. Petersburg, proposed the mercuric cyanide as a valuable remedy in the treatment of diphtheria, giving it in doses of $\frac{1}{15}$ to $\frac{1}{15}$ grain. Of twenty-five cases thus treated he lost three. Others who have used the same drug report favorable results, but from the small number of their cases and the absence of systematic observations, their testimony is of no great value.

THE CARE OF THE INSANE IN NEW YORK STATE.

MUCH attention has been paid by THE RECORD to the subject of the care of the insane in this and other States. We have reason to believe that the profession and public have been led to take an interest in the subject, and that in the past few years great improvements have resulted in the direction desired. It is very evident, however, from a recent report made to the State Charities Aid Association, that the system of caring for the indigent insane, in this State at least, is still far from perfect. A large proportion of the class referred to are still boarded, and, after a fashion, treated in County asylums and poor-houses. Here, says the committee, a very unsatisfactory condition of affairs exists. Lunatics who, perhaps, might be cured or improved with proper care in State hospitals, were found cooped up in close cells like ox-stalls, as in Chenango County, or chained to strong iron rings in the wall of the yard, like wild animals, as in Genesee—the lack of suitable care-takers making this recourse to restraint necessary. In Broome County the bath-room was found in the coal cellar—six patients bathing in the same water, which was then saved to wash the clothes in, in the laundry. As a general rule, the insane in County poor-houses were kept in attics, basements, and outbuildings filthy and squalid. In Niagara County the secretary found insane patients shoeless, bareheaded, compelled to sit on the floor, and all, both men and women, under charge of a male pauper. The report recommends that poor-house insane wards and County asylums be abolished, and that all classes of insane be cared for by the State, in cottages of moderate cost on the vacant lands of the six present State institutions. The report also recommends the opening of training schools for nurses in insane hospitals.

The plan suggested, like all others, is open to the objection that it involves the expenditure of money. We believe, however, that it will be cheaper in the end to make provision for the early and proper treatment of the insane; and some such plan as that proposed is the one which most of those best acquainted with the subject are generally advising.

LESION OF THE SYMPATHETIC IN THE NECK.

THE comparative rarity of this affection and diagnostic difficulties attending it fully warrant us in noticing the case reported by Drs. Samuel Gee and John Abercrombie in "St. Bartholomew's Hospital Reports," vol. xviii., 1882.

The patient, a boy aged four years and seven months, presented the following curious and interesting group of symptoms: Ptosis of the right eye, and right hemiplegia; right pupil about one-half the size of the left; absent knee phenomenon. These were all of the positive symptoms when first seen. Later it was seen that the right pupil did not dilate so fully under atropine as the left. Two weeks later the leg became paralyzed also. At this time fever developed, which persisted; the temperature, however, not rising above 100°. One month after the paralysis of the left leg there were pains in the left shoulder and arm, and non-expansion of the chest, respiration being wholly diaphragmatic. A strong induced current was needed to obtain action of most of the leg muscles, though all acted fairly well to the constant current; cutaneous sensibility of the legs was diminished; movements of the legs caused priapism. About three weeks after this it was noted that both pupils responded to light, and contracted to the same size under eserine; patient could not move his legs and did not feel the prick of a pin; the sphincters acted involuntarily; the head was held carefully and a little to the left, and he did not lie on the left side as formerly. During sleep the head perspired profusely. After another week it was noted that he perspired only on the left side of the face, though both sides perspired after an injection of pilocarpine; the temperature in the right ear was three degrees higher than in the left. This state of things continued until death ensued, about ten days later.

The pathological appearances in this case were scarcely less striking than the clinical symptoms. In the upper part of the right pleural cavity were two irregularly lobulated, rounded masses, bulging into it at the apex from the vertebral column, of a yellowish-white color, spotted with purple and very soft on section. On examination of the vertebral column, a similar growth, continuous with the above, was found, apparently attached to the right side of the bodies of the lower cervical and upper dorsal vertebræ. The inferior cervical sympathetic ganglion on the right side could not be found. Within the spinal canal the growth was found on the inner aspect of the bodies of the same vertebræ on their right side only, pushing the cord forward and to the left. Here the growth was more purple than elsewhere. At this point the cord was small, was very soft throughout, and on section it was seen that the gray matter was very

pale and ill-defined. The growth proved, on microscopic examination, to be an alveolar sarcoma. Examination of the cord showed that in the cervical enlargement on one side the gray matter was healthy, on the other side there was a marked swelling of the large motor cells; in many instances neither their nuclei nor processes were visible. The most obvious changes below this region were turgescence of blood-vessels and increase of neuroglia corpuscles.

The paralysis of the extremities and the soft semi-fluctuant tumor by the side of the cervical spinous processes, lead in this case, very naturally, to the diagnosis of Pott's disease. Subsequent to death four points suggested themselves to the reporters, a consideration of which might have saved them from error: 1. The patient never complained of pain in the neck; whereas in ordinary cases of caries pain (in the earlier stages before there is displacement) is frequently a prominent symptom. The patient did not hold the head carefully until the swelling appeared in the neck. 2. The paralyzed legs were perfectly flaccid, there was no ankle-clonus, and the knee-phenomenon, instead of being excessive, was entirely absent. Thus there was no evidence that the lateral columns of the cord were affected, a circumstance which would be very strongly against the diagnosis of Pott's disease. 3. The coincidence of paralysis of the sympathetic with the signs of vertebral disease should cause doubt as to the existence of caries. 4. The character of the fever. The temperature remained steadily at 100° F. for more than a month, both morning and evening. The fever which is associated with scrofulous or tubercular affections is almost invariably of a remittent type, with evening exacerbations.

There were also other symptoms in this case pointing to lesion of the sympathetic nerve. Of these, the eye-symptoms appeared first. The ptosis and contracted pupil should have been regarded as pointing very strongly to sympathetic lesion, especially when taken in connection with the unilateral perspiration, which comes on, however, at a later stage. Then, too, the increased temperature of the affected side was a very strong symptom in favor of lesion of the sympathetic. It is evident that the growth passed through the intervertebral foramina, and thus reached the cord. It is more probable that its origin was from some of the intercostal glands, for although the alveolar sarcoma, as first described by Billroth, grows in the muscle and bone, it appears to be formed generally from lymphomatous tissue.

THE CHANGES IN THE CITY HEALTH DEPARTMENT.

AT a special meeting of the City Health Board last week some important changes were made in its organization. Hereafter the Sanitary Bureau will be composed of seven divisions, with an officer at the head of each at a salary of $3,000 a year. The divisions have the following functions: 1st, Sanitary Inspection; 2d, Adulterations and Offensive Trades; 3d, Public Nuisances: Matters endangering Health upon the Streets, Special In-door Inspection; 4th, Vaccination and Disinfection; 5th, Care and Maintenance of Hospital Buildings for Contagious Diseases, Treatment and Transportation of Patients; 6th, Plumbing and Ventilation; 7th, Vital Statistics.

The practical value of the above reorganization has yet to be tested. Its first effect appears to be to cause an increase in the expenses of the department, and to furnish three lucrative positions for a son of the mayor, an ex-harbor master with no experience in health matters, and a brother of Commissioner Brennan. Some of these divisions plainly do not require the expert knowledge or skill assumed to be necessary by its elaborate organization and expensive head. Three thousand dollars is a large amount to pay for the tentative services of wandering politicians and young medical graduates. The annual expenses of the City Health Department are now $411,000, a large sum to pay for the sanitary care of one million of people. The fears expressed when Professor Chandler left the Board, that it would pass into the hands of politicians, are justly aroused again by this last "deal."

We trust that our Board, though an expensive political body, will at least continue to prove efficient in its sanitary work.

News of the Week.

THE FIRST MEETING OF THE OHIO STATE SANITARY ASSOCIATION takes places at Columbus, on February 14 and 15, 1884.

VITAL STATISTICS OF NEW YORK CITY FOR THE YEAR 1883.—The Board of Health records show the number of births to be 28,972; marriages, 11,566; deaths, 33,982. There were twenty centenarians on the death-roll. The record for 1882 was 27,321 births, 11,085 marriages, and 37,924 deaths. The decrease in the death-rate is largely due to a less amount of zymotic diseases, as shown by the following:

	1882.	1883.
Scarlet fever	6,312	3,820
Diphtheria	3,507	2,090
Typhoid fever	686	1,373
Typhus fever	207	71
Cerebro-spinal meningitis	236	239
Measles	4,637	3,828
Small-pox	708	26

The total number of deaths from all zymotic diseases was 9,252; from constitutional diseases, 7,419; from local maladies, 3,681; and from developmental disorders, 2,115. Among contagious diseases scarlet fever stands at the head of the list with 3,820 victims. Other contagious maladies follow thus: Diphtheria, 2,090; typhoid fever, 1,373; typhus, 71; cerebro-spinal meningitis, 239; measles, 3,828; small-pox, 26. There have been 1,325 deaths by violence, including 61 homicides; 17 persons came to death by blows, 14 were cut or stabbed out of existence, 1 man was kicked out of the world, 23 died from gunshot wounds, 1 of strangulation, 1 was run over by a wagon, and 1 died in trying to make a bonfire of his clothing.

The list of deaths by accidental poisoning presents great variety. Opium and laudanum have ended 5 lives; hydrate of chloral, 2; carbolic acid and opium habit, 3 each; morphine and lead, 6 each; benzine, aconite, yellow jasmine, rye whiskey, and kerosene, 1 each.

There were 1,690 deaths from heart disease, 3,158

from pneumonia, 83 from sunstroke, 524 from apoplexy, and 1,845 of Bright's disease; 8,724 of the deaths were infants less than one year old; 10,246 between one and two years, and 17,720 between two and three years; while 2,333 persons lived to see threescore and ten. In the various public institutions there were 7,836 deaths; in houses containing less than four families, 8,743; in tenements, 18,041, and in hotels, 318.

THE COST OF THE CHARITIES OF NEW YORK CITY.—Besides the excise money New York City has appropriated for the year 1884, for charities and correction, $1,774,105; for asylums, reformatories, and charitable institutions, $1,094,749. The coroners cost us $50,000, and the Health Department $411,157.

STABBED BY A LUNATIC.—The medical staff of the New York City Insane Asylum take their meals together, and are waited upon by presumably tractable lunatics. Last week, however, the doctors were all sitting at dinner, and three of the patients were waiting on them, when one of the lunatics took a carving-knife, and walking around the table behind Dr. Walsh, made three savage lunges. Two of the thrusts simply went through the doctor's coat, vest, and shirt, but the third made an ugly flesh wound five inches long in his side. The wound was a painful one, but not serious. The patient was disarmed and at once confined in a cell, where he will be under constant supervision.

THE RATHBONE TRAGEDY.—There can be no question that Colonel Rathbone, who has been the centre of such a fearful domestic tragedy, is and was insane. There is a fact of curious psychological interest in the case. Colonel Rathbone was in the box with President Lincoln when Booth shot and stabbed the latter. The impression made by the event was most powerful. Now, eighteen years later, Rathbone kills his wife in exactly the same manner that he saw Booth kill Lincoln, viz., with pistol and dagger.

"URSU-OSIS."—It is said, and probably with truth, that the year never ended with so many persons made actually sick by the bearish condition of the market. Melancholia, general nervous asthenia, with occasionally sugar in the urine, seem to be the characteristic features of a condition which we may term "ursu-osis." About seventy per cent. of all railroad presidents, ironmen, and buyers on margin are now affected with it.

THE CHANGES IN THE CITY HEALTH BOARD.—The reorganization of this department has resulted in a number of changes among its officers. Colonel Emmons Clark is the secretary of the board, and Caspar Goldermann chief clerk and auditor. W. P. Prantice is attorney and counsel. Dr. Moreau Morris is chief of the first division of the Sanitary Bureau, of which Dr. Walter De Forest Day remains City Sanitary Superintendent. Dr. Cyrus Edson, formerly a Sanitary Inspector, has been made chief of the second division. Major Willard Bullard, formerly a Harbor Master, has been appointed chief of the third division. Dr. J. B. Taylor is chief of the fourth division. Dr. E. H. Janes, Assistant Sanitary Superintendent, is chief of the fifth division. J. C. Collins, a clerk in Colonel Clark's office, has been made chief of the sixth division. Dr. Day is chief of the seventh division, and Dr. John T. Nagle is in it as Deputy Registrar of Records; Inspectors Hockheimer and Cowl, in the Vaccinating Bureau, and McChesney, Lockwood, C. P. Russell, Stillwell, Roberts, and G. F. Morris, in other bureaus, have been removed, but one or more of them may be reappointed. Drs. J. F. Dunphy and G. S. Conant were appointed Inspectors in the fourth division.

THE NUMBER OF SUICIDES IN NEW YORK during the past year was 161. Seventy-eight of them were married, 43 single, 24 widowed and divorced. The list includes 134 males and 27 females. Nine of them were less than twenty years old, 30 between twenty and thirty, 44 between forty and fifty, 29 between fifty and sixty, 7 between sixty and seventy, while 5 suicides became tired of life in the eighth decade. Among the nationalities Germans come first with 70 suicides. Shooting was the favorite method of killing, since it was resorted to in 56 instances. There were 19 hangings, 15 stabbings and cuttings, 12 drownings, and 11 falls from high places. Paris green was most in demand among poisons, and 18 suicides swallowed it, 7 choosing opium.

THE NUMBER OF DEATHS DURING THE PAST YEAR FROM CASUALTIES, such as volcanic eruptions, accidents, marine disasters, fires, floods, etc., is estimated to be nearly one hundred thousand.

MORE MEDICAL BARONETS.—The Queen has announced her intention of conferring a baronetcy upon Professor Lister. This is a well-deserved honor, and one upon which he will be universally congratulated by the medical profession. For whatever views may be taken as to the value of Listerism proper, all will concede that Lister has been one of the main causes of the antiseptic era in modern surgery. A baronetcy is also to be conferred upon Dr. William Bowman, a gentleman who has long been recognized as the leading ophthalmic surgeon in England.

DEATH OF DR. CALVIN ELLIS.—Dr. Calvin Ellis, Professor of Clinical Medicine in Harvard Medical College, died on December 14th from a duodenal ulcer. Dr. Ellis was born in Boston in 1826. He graduated from Harvard University in 1846, and from the Medical School in 1849. He was appointed Professor of Clinical Medicine and Visiting Physician to the Massachusetts General Hospital in 1864. Dr. Ellis was a very earnest and conscientious teacher. He made a number of contributions to clinical medicine, and was engaged upon a work on "Symptomatology" at the time of his death.

A CASE OF DEATH FROM THE INHALATION OF ETHER occurred at a clinic at Bellevue Hospital recently. The patient was a boy with apparently sound lungs and heart. He was under ether for about an hour and a half when he suddenly ceased to breathe, and all efforts at resuscitation failed.

THE AMERICAN HOG AGAIN.—The French Government has again changed its policy and has decided to admit salted meats, including American pork, only after a rigid inspection thereof by experts. A sensation has been caused by some very emphatic statements made by Paul Bert, to the effect that Chicago hogs are diseased to a very large extent.

BISMARCK AND HIS MEDICAL ATTENDANT.—Bismarck has made his medical attendant, Dr. Schweninger, a "Professor" unattached. He has no lectures to deliver, students to teach, or chair to occupy, but is simply Professor of the Anatomy, Physiology, and Pathology of Bismarck.

A MEDICAL LIBRARY FOR CHICAGO.—The trustees of the Chicago Public Library have decided to found a medical department to the library. The Chicago Medical Society has voted $500 to aid in starting the library, and further subscriptions are being solicited. We congratulate the profession of Chicago upon this step, although it would have been better still if the doctors had taken hold and built up a library of their own.

REFORM IN LOUISVILLE MEDICAL COLLEGES.—Two of the Louisville medical colleges, viz., the "Kentucky School of Medicine," and the "Hospital College of Medicine," have, by mutual agreement, decided to allow only two beneficiaries per term in each college. Full rates are also to be charged after 1884. The announcement of the terms of this agreement would lead one to think that there has been a great deal of cutting in rates heretofore. Sons of physicians are still admitted at half price.

ORGANIZATION OF AN ANTHROPOLOGICAL SOCIETY.—A new Society was organized last week, called the New York Anthropological Society, with Rev. Dr. E. P. Thwing as President, and Dr. A. D. Rockwell, Secretary. The object of the Society is to study and investigate the phenomena of psycho-physiology, "the vast amount of important and unclassified data in psychology which stands in vital connection with the physical, social, and moral well-being of the community." The society is composed of medical men and others interested in scientific subjects.

THE SANITARIAN has returned to its monthly form after having been issued weekly for a year. Its present make-up is a great improvement upon the older one.

SUIT TO ANNUL THE CHARTER OF THE ECLECTIC MEDICAL COLLEGE OF THE CITY OF NEW YORK.—At the instigation of the Medical Society of the County of New York, Attorney-General Russell began last week in the Supreme Court, in the name of the people of the State, a suit for the annulment of the charter of the Eclectic Medical College of the City of New York, on the ground that the officers of the college have persistently disregarded the restrictions of its charter respecting the issuance of diplomas, and, by improperly licensing unqualified persons to act as physicians, have done injury to the public. The Eclectic Medical College was organized in 1865, and has acted under a charter granted by the Legislature in that year, and amended in 1869. Respecting the alleged abuses committed by the Eclectic Medical College, the complaint says, on information and belief, that "it has issued large numbers of the diplomas of said corporation (the college) with the signatures and alleged signatures of its President and Secretary, and attested by the seal of the corporation and the signatures and alleged signatures of a majority of the Board of Censors and Instructors in said college, which said diplomas contained no name of a supposed graduate, but did contain a blank space, to be filled up by the name of some person into whose possession it might thereafter come, and such blank diplomas so issued have been by the said corporation delivered to third parties and wholly parted with by the said officers and censors, and have been exhibited and exposed for sale and unlawfully and illegally issued and disposed of to persons not legally entitled thereto ever since the said incorporation to the date of the commencement of this action." By these methods, and in other ways, the complaint continues, the Eclectic Medical College has conferred the degree of Doctor of Medicine on numerous persons known not to be of good moral character, "persons notoriously charged with, indicted for, and convicted of crimes; persons who had not pursued the study of medicine three years under the supervision of reputable physicians; persons who had not attended two full terms of instruction in an incorporated medical institution; persons who could not read, write, or speak the English language, and persons morally and generally known to be unfit to receive said diplomas and degree." It is also charged that the trustees of the college have improperly conferred the honorary degree, or *ad eundem* degree, on persons in no sense qualified to receive it. The Attorney-General asks that the college be deprived of its absurd charter and its corporate existence be annulled. The complaint is verified by Dr. David Webster, President of the County Medical Society.

POINTS OF INTEREST IN CHOREA.—Dr. A. D. Rockwell, of this city, writes: "In a late article by Dr. H. D. Chapin on 'Points of Interest in Chorea' (MEDICAL RECORD, December 15th), he refers to the valuable results obtained by Dr. Dana in the treatment of this disease by the method of 'anodal galvanization.' As the method is so positively valuable in chronic forms of chorea, and yet so inadequately appreciated, I am always glad to read allusions to it confirmatory of the excellent results that follow its intelligent use. The anodal galvanization to which reference is made is, however, but an incomplete and therefore unsatisfactory form of 'central galvanization,' first described by Dr. Beard and myself many years ago, and to the illustration of which a special chapter has been devoted in the last three editions of our work. In the clinical portion of this work also will be found cases of chorea, illustrative of the efficacy of this and other methods of electrical treatment, and in various published articles I have further emphasized the subject and proven its curative power in choreic cases of the most unpromising character. In central galvanization the idea is to influence the central nervous system as thoroughly as may be, by the galvanic current, and to this end the anode is applied to the head and the cathode over the solar plexus. In this way the brain, spinal cord, and sympathetic can be more or less influenced, and with results, beneficial, not only in obstinate cases of chorea, but in other forms of so-called functional nervous disease. Dr. Dana, in his recent and excellent article on anodal galvanization of the brain in chorea, published in THE RECORD, alluded to the labors and successes of a number of foreign writers in the use of this form of treatment, but unconsciously, without doubt, quite overlooked and therefore failed to mention either my own efforts or those of Dr. Beard in the same direction. As our writings on central, which of course comprehends anodal, galvanization antedated that of all the others mentioned, constituting the first systematic treatment of the subject in its relation to chorea, and to various other diseases, I beg to offer these few lines of comment and explanation."

Reports of Societies.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, December 12, 1883.

GEORGE F. SHRADY, M.D., PRESIDENT, IN THE CHAIR.

DR. W. H. PORTER presented, in behalf of a candidate, a specimen of

CIRRHOSIS OF THE LIVER, WITH CANCER OF THE STOMACH.

DR. FERGUSON presented a series of specimens illustrating

CONGENITAL ANOMALIES OF THE LIVER.

First.—Enlarged right lobe, frequently at the expense of the left.

Second.—Enlargement of the left lobe, at the expense of the right lobe in some cases.

Third.—A liver having only one lobe, the organ being nearly a complete hemisphere.

Fourth.—A liver with one large lobe and several small nodules [four in the specimen presented] attached to the under surface.

Fifth.—Livers which were divided into a very large number of lobes, sixteen to twenty in one specimen, and a larger number in another.

DR. J. C. PETERS recalled one case, that of a young girl who had congenital enlargement of the right lobe of the liver, and was apparently perfectly healthy. Her mother had suffered from intermittent fever during her pregnancy, and Dr. Detmold, who saw the case, was positively of the opinion that the condition of the child's liver was due to the malaria from which the mother suffered before childbirth. The condition has persisted, and the girl (now a young woman) still has a large right lobe of the liver, but is in excellent health. There was no enlargement of the spleen.

DR. F. FERGUSON also presented specimens illustrating

CHRONIC DIFFUSE NEPHRITIS—ACUTE ENDOCARDITIS,

removed from the body of a woman twenty-two years of age, a native of the United States, married, and a housewife by occupation. She was brought to the House of Relief November 27, 1883, with the following history: She was suddenly seized with acute pain in the chest, dyspnœa, and vomiting three hours previous to her admission. She had been a patient for some time (how long she could not state) and treated in a hospital for dropsy. On admission her face was cyanosed and she complained of sharp pain in the chest. There was a loud blowing murmur over the base of the heart transmitted into the carotids. The cardiac action was masked by the dyspnœa. Both the cardiac action and respiration were 76 per minute, and synchronous. She constantly failed, and died seventeen hours after admission.

The autopsy was made twenty-four hours after death. There was œdema of the legs below the knees. The peritoneum contained twelve ounces of serum; there was no evidence of peritonitis.

The diaphragm was on a level with the fourth rib on the right side and the fifth rib on the left side. There were loose old adhesions binding the upper lobes of both lungs to the chest-wall, and each pleural cavity contained about six ounces of clear serum. The cavities of the heart, especially the left auricle and ventricle, were dilated; the valves on the right side were competent; the aortic valve was competent. There were vegetations on the free border of the cusps of the mitral valve; these vegetations extended from the auricular surface of the posterior segment of the mitral upward on the posterior wall of the auricle a distance of two inches. The muscle-cells of the heart had undergone fatty degeneration very generally.

The lungs were congested and intensely œdematous. The upper lobe of the right lung was in the condition of red hepatization. The liver contained considerable fat and pigment. The spleen was larger than normal, pigmented and congested. The stomach and the intestines, in places, were congested. The left kidney was slightly larger than normal, surface was smooth, markings not very distinct.

On microscopic examination the tubules of the cortex contained much fat, and there were hyaline and granular casts in the straight tubules. The right kidney was very small, about twice the size of a normal supra-renal capsule; it was composed almost entirely of fibrous tissue. The kidney structure was barely recognizable, and no interference with the vascular supply or the ureter had been noticed to account for the atrophy of the organ. The bladder, vagina, and uterus were normal.

Both ovaries were displaced downward and forward, and there were adhesions (old and loose) stretching from the left ovary to the rectum, and from the right ovary and Fallopian tube to the fundus and posterior wall of the uterus. The right Fallopian tube was converted into a sac, which contained two drachms of pus, in which were found columnar ciliated epithelium. The left Fallopian tube was in a similar condition, but very much less distended. The ovaries seemed normal.

DR. HEITZMAN presented what seemed to him to be

A RATHER UNIQUE SPECIMEN OF URINE.

It was passed by a woman fifty years of age, who was under the care of Dr. M. O. Terry. The patient passes, for two, three, or four weeks, an enormous quantity of whitish shreds with her urine, and micturition is very painful. She has done this almost continuously since childhood. The urine looked flaky, and the sediment presented a peculiar glossy, shining appearance. Examined microscopically it was found to consist almost entirely of dried epithelial elements. Besides a small number of cholesterine crystals there were a comparatively large number of crystals of urate of soda in the form of sheaves described by Ultzman. All the features of the case pointed toward the diagnosis of dermoid cyst, very likely in communication with the pelvis of the kidney. Dr. Heitzman said to Dr. Terry that if the pain was severe and the patient's health was being impaired, it would be justifiable to cut down and look for a dermoid cyst. Not having heard from the case for a long time he wrote to Dr. Terry, and received a letter stating that the woman continued the same as she had been during the last forty or fifty years, and that this peculiar appearance of the urine is seen every two or three weeks. Dr. Heitzman showed the specimen to illustrate the epidermal masses such as are seen in dermoid cysts, and also the urate crystals of the sheave-like form described by Ultzman.

On motion, the specimen was referred to the Committee on Microscopy.

DR. J. A. WYETH presented a specimen which demonstrated one of the many uses of

THE ELASTIC LIGATURE.

It consisted of a part of the remains of an enlarged thyroid gland, with the ligature attached, one-half of which he removed, and had already published an account of the operation. Dr. Wyeth applied several ordinary ligatures to bleeding points, but they were of no avail, and he finally surrounded a small mass of vascular tissue with the elastic ligature, and had no further trouble from hemorrhage. The ligature was allowed to remove itself, and when it fell no hemorrhage occurred. He thought there was no safety in applying an ordinary ligature to a vascular tumor.

ANGIOMA OF THE VOCAL BANDS.

DR. L. ELSBERG presented a tumor he had removed from the larynx of a man twenty-eight years of age. It was situated upon the right vocal band, very near the an-

terior commissure, and was about the size of a large pea, dark in color, and to the probe was soft. It was diagnosticated as angioma of the vocal bands. Macroscopically the tumor looked very much like a sponge. Microscopically it was made up of blood-vessels chiefly. This variety of tumor of the larynx is very rare, there being only a very small number on record. All those tumors which have been described have had their seat near the anterior commissure, and usually on the right vocal band.

The Society then went into executive session.

NEW YORK ACADEMY OF MEDICINE.

SECTION IN OBSTETRICS AND DISEASES OF WOMEN.

Stated Meeting, November 22, 1883.

ALEXANDER S. HUNTER, M.D., CHAIRMAN.

DR. W. M. CHAMBERLAIN read a paper entitled

NOTES ON MALPOSITION OF THE UTERUS.

The mechanical treatment of uterine displacement has been one of the most arbitrary and empirical departments of our art. Dating back to Hippocrates, it has obtained a varying degree of attention down to the present time. For brief periods new methods and instruments have been multiplied, and then experience of their insufficiency, and even of their mischievous tendency, would lead to temporary discontinuance and abandonment, to be followed by a renewal of interest in the subject and new series of experiments. There are many men of good repute who seldom or never employ pessaries, denounce them as barbarous in conception, irritant, uncleanly, inefficient, and even very dangerous, and in any given case their strictures may be perfectly just. But most of us can recall in our own experience many cases in which they have proved to be the least of two evils, and some of us have series of cases in which they have proved means of greatest comfort and advantage.

Obviously in estimating and discussing malpositions, it is first necessary to understand normal positions. Should the word be used in the plural? Is there more than one normal position of the uterus?

The uterus has a range of normal motion, makes excursions around a normal centre of motion, and is probably seldom, during life, absolutely at rest in that position. There is one limit of physiological motion, another of mechanical mobility, and a third of morbid extension. The lateral mobility is slight, not more than one inch for the healthy organ. On the other hand, the uterus revolves with great freedom upon a transverse axis, the axis of retroversion and anteversion.

By normal position is meant that situation to which in the healthy subject it tends to return from its excursions, and in which it remains in the equation of all the forces. A great deal of careful study has been given to the determination of this position in the last decade. It is with respect to the position of the fundus that there has been the most discrepancy of opinion. All agree that the infantile uterus is strongly anteverted and anteflected, and that it remains so through childhood. Opinion hitherto has been that with the advance of puberty the organ gradually erects itself, but the continental observers think that this erection amounts to much less than has hitherto been supposed. Fritsch and Schultze even teach that unless the organ be pushed back by a full bladder, or by the descent of intestines into the cul-de-sac anterior to the bladder, the plane of the anterior wall departs from that of the vagina by only a small angle, say ten or fifteen degrees.

This view of late has received much confirmation from the extraordinary clinical observations of Vedeler, of Christiana, Norway, based upon the examination of 3,012 adult women, 466 virgins, 749 multiparæ, 322 women in the first month of pregnancy, and 1,465 non-parous.

The forces which disturb the position of the womb act from the abdomen above it—the pressure of the intestines actuated by the impulse of the diaphragm in respiration, and by whatever may occasion contraction of the abdominal muscles. The effect of these forces will depend upon the balance between them and the power of resistance in the womb and its supports.

When the womb is so placed that the impulse from above is received upon the comparatively thin superior border of the fundus, the pressure wave will not only disturb it least, but dividing and passing before and behind it will impinge upon the pelvic floor, and by repercussion will steady and support the organ. In this position the longitudinal fibres will also best maintain its position. It is therefore rational to suppose that the uterus, having free mobility in its transverse axis, is continually adjusting itself to this position of election, in which it may feel the disturbing force least and be best able to resist it, the direction of the wave varying with the tension of the abdominal wall and the attitude of the body.

If, then, a woman complains of pelvic pain or other symptoms, and at the same time presents a marked anteflexion, we are not forced to conclude that the anteflexion is to be treated; or if it be removed, that there will for that reason be a cure of the case. It remains, then, to explain these cases in which anteflexions have been recognized and mechanical treatment pursued until the anteflexion was overcome, the patients recovering health with the cure of the anteflexion. The explanation must be that the treatment, devised and designed only for the cure of the anteflexion, did remove other conditions upon which rather than upon the anteflexion the symptoms in reality depended. In the same way retroversions may exist without producing symptoms.

Assuming that these views are correct, the practical inferences which follow them are of much importance.

First.—Such degrees of rotation of the womb as do not carry its longitudinal axis at any portion down to the plane of the vagina, may be called almost physiological displacements, and do not require treatment as such.

Second.—The discomforts and the negative results which notoriously have attended the use of anteflexion pessaries thus appear avoidable.

Dr. Chamberlain then considered at some length the character and relations of the tissues upon which the force of pessaries is exerted.

The mode by which flexions and displacements occur seems to be somewhat as follows: From impaired support beneath, due to relaxation of the underlying tissues, the uterus *first* descends, until it encounters a more or less fixed resistance. The weight of the organ above, and the intra-abdominal pressure continuing, and descent being for the time restrained, the womb bends at the junction of the body and the cervix. Whether it shall be a forward or backward displacement depends upon causes which it is difficult absolutely to determine. Version and flexion occur together. Whether flexion shall predominate over version, or the reverse, or whether both shall be less than descent, will depend on the comparative softness of the tissues around the os internum as contrasted with the rigidity of the pelvic floor. In the greater number of cases the intra-vaginal portion moves in the opposite direction from the fundus, but in all, the organ, as a whole, descends more or less. It is probable that subjective symptoms do not arise until the process of congestion has somewhat advanced. It is the congestion, the prolapse, and the ligamentous tension, rather than the version or the flexion, which are painful.

By extending the vagina in both directions, longitudinally and laterally, pessaries restore, in part, the loss of tension of the soft parts; by their own rigid outline they distribute unavoidable pressure over larger areas and antagonize partial and limited contractions, much as plaster to the wall of the thorax unifies the action of the

separate intercostal muscles, and perhaps as much as in any other way, they cut off the friction which attends the continued motion of the soft parts sliding upon each other. How else are we to explain that a simple oval ring, with an aperture not more than one inch across and a long diameter of not more than an inch and a half, lying flat on the floor of the vaginal plane and embracing the os, confers often so much relief? It is the oldest form of pessary, but it has been retained as a very useful one through several generations.

Dr. Chamberlain then spoke of the material of which they are constructed and the conditions which permit of the use of pessaries. The best material is hard rubber. The use of soft rubber is to be deprecated, because it almost invariably produces excoriations. A few years ago he recommended celluloid, used as a covering for soft copper wire, but since then he had found that they become brittle by keeping. This objection, however, does not apply to them when in actual use. The current statement that hard rubber instruments can be bent to any shape by heating them in the flame of a spirit lamp is not practically true. It is impossible to warm to equal softness all parts of the instrument in this manner, and a much better way is to lay the instrument upon a piece of pasteboard and place it in a moderately hot kitchen oven for a few moments.

It is a common error to choose too large an instrument. A complicated outline is generally to be avoided. Many instruments are made with their surfaces too small. Pessaries should not be used with the idea of thereby gradually repositing a displaced organ; they are to prevent the return of the uterus, it having been reposited by some other means. Pessaries should not be used in the acute stage of local inflammations. On the other hand, the presence of great and painful engorgement does not preclude the guarded use of a pessary. The condition often depends on the displacement, and the best way to get rid of it is to reposit the womb and keep it in place. The use of pessaries should be the last resort in young unmarried women, and in hysteria from psychic causes. A pessary should almost always be promptly removed if it causes pain or fails to confer relief, and every woman wearing a pessary should present herself for examination at frequent intervals.

Dr. Chamberlain then exhibited about twenty varieties of pessaries in more or less common use, and indicated the points in which some of them met and some of them violated the conditions of extension rest and support previously stated. He gave preference to the "Albert Smith," the arms of which should be not less than one centimetre or four-tenths of an inch in diameter and the ends but slightly curved, and to the Fowler cup, and thought they could be made to meet almost all the indications.

Dr. F. P. Foster did not have the pleasure of listening to the first part of Dr. Chamberlain's paper, but in the latter part he had been much interested. He did not believe that any pessary acts as a lever. What a pessary does is this: A retroversion pessary acts almost always, if not always, by carrying the loose posterior wall of the vagina backward, usually somewhat upward, dragging the cervix in the same direction, and causing the body of the organ to take an opposite direction. In order for the retroversion pessary to act by making direct pressure upward and forward on the body of the organ, as stated by most authors, the pessary must be exceedingly long, much longer than he had ever seen in use; and, besides, it must have an exaggerated curve, even more so than that illustrated by Dr. Noeggerath's instrument, which had been shown.

In the next place, if the limbs of the pessary were far enough apart to allow the cervix to hang free between them, it would be so wide that it would spread the utero-sacral ligaments apart, and, whatever support it might give temporarily, the last state of that woman would be worse than the first. For as soon as its use is discontinued the ligaments will be found still more relaxed than at the beginning of the treatment. As they constitute a sort of natural obstacle to retroversion of the uterus, there would be no natural tissue left to counteract such displacement. How, then, can stretching of the utero-sacral ligaments be avoided on the one hand, and on the other hand an instrument be employed which is small enough to go up between the ligaments and not push them apart? Dr. Chamberlain has brought out this objection in all pessaries, and had said that their bearings should be small and make pressure upon a limited area. A pessary small enough in its upper arch to pass between the utero-sacral ligaments without stretching them would not, probably, be well borne if worn continually. Now, that objection and several others may be gotten over by using pessaries which are not worn continually. Dr. Foster never employed a pessary which the patient could not introduce and remove herself, and she is always instructed to remove it at night. By this intermittent action it is perfectly possible to use a pessary with small bows which pass readily between the utero-sacral ligaments if necessary, but it is not often necessary.

The form of instrument which he used gave him opportunity to add to what Dr. Chamberlain had said with regard to celluloid and copper wire. He had used this material constantly ever since Dr. Chamberlain introduced it, and nothing else, and he had not known it to deteriorate by keeping. He had one patient who had worn this kind of pessary constantly ever since Dr. Chamberlain introduced the material, and it was yet in good condition. The instrument which he always used for retroversion is made for each patient. He had the instrument maker simply make a rod of copper wire covered with celluloid, and out of these straight rods, which are from twelve to eighteen inches in length, he fashions a pessary for each patient, bending it in the middle for the pessary bow, then having it run out to the vaginal outlet almost straight, and then it curves down abruptly to form the part which impinges against the anterior surface of the perineum, one leg bending backward and the other curving forward. In this way the lever action is avoided.

In regard to anteversion, he thought, with Dr. Chamberlain, that neither anteversion nor anteflexion is very seldom relieved by treatment. He did not believe that anteflexion could be at all influenced by mechanical treatment except by stems, which he never used. He thought that it is unwarrantable to treat these displacements mechanically. The only cases proper for treatment are those in which physiological anteversion or anteflexion of pregnancy gives rise to a good deal of suffering, and under such circumstances the pessary may be used as a temporary measure until the uterus is sufficiently large to rise out of the pelvis.

In some instances the pessary is of use where the displacement is not very prominent before it is applied, but it is not for the purpose of overcoming the displacement that the pessary is employed. Sometimes the pessary is beneficial by actually increasing the displacement. A great majority of displacements are due to contraction of inflammatory exudations. Now, if you have a band, say of organized material extending from the body of the uterus back to the promontory of the sacrum, you can readily imagine that there is a constant strain upon that, which gives rise to pain on any movement of the body, particularly any sudden movement brought to bear upon this sensitive pathological structure. Under such circumstances a pessary can be so adjusted as to prevent any such sudden movement and even exaggerate the existing displacement.

Dr. Paul F. Mundé said he felt as much interested in this subject as any in gynecology. With regard to the normal position of the uterus, it seemed to him very curious that so many authors disagreed on this point. The normal position is a variable one, and it is not fair to say that it is either anteversion or anteflexion, for it is simply one of degree according as to whether the

bladder is full or empty, the rectum full or empty, the patient standing or lying, expiring or inspiring, quiet or in motion. The position is a movable one, but in general it may be stated that it is one of ante-curvature with a slight degree of anteversion. The position described by Shultze and Fritsch as normal he had never found. The position which he had regarded as normal was that in which the axis of the vagina and that of the uterus met each other at a slightly acute angle, and from this it is movable one degree forward and more backward. In other words, the position which Dr. Chamberlain had described was the one which he would accept, as it would give sufficient mobility for a remove one degree anteriorly and two degrees or more of normal mobility posteriorly. Dr. Mundé was unable to understand how Fritsch and Shultze had found the uterus lying flat upon the vaginal wall. Should he find a uterus in this condition he would call it an anteflexed pathological uterus. The position of the uterus varies according to whether the woman is standing or lying. In the standing position there is more anteversion than anteflexion, and the uterus is a little lower in the pelvis than when lying, and the fundus is slightly turned toward the abdominal wall.

Speaking of the relative frequency of the different malpositions of the uterus, he had found that anteflexion, which he called a malformation of the uterus, was the most frequent displacement in nulliparas and the unmarried. The next most frequent form is anteversion with descensus, occurring in married women, and the next most common displacement is retroversion with or without retroflexion in women who have had children.

He was thoroughly of the opinion, as had already been said, that the uterus first settles in the pelvis because the ligamentous support is relaxed, then the fundus gets below the promontory of the sacrum, then begins to be retroverted, and afterward retroflexed more or less. Occasionally retroflexion exists primarily.

The significance of these various displacements is a point of a good deal of interest because it bears upon the question of mechanical treatment. Anteflexions *per se* produce no symptoms. The congestion accompanying them, or the spasmodic contraction, may produce dysmenorrhœa, but the anteflexion itself does not do so. He did not believe that the anteflexed fundus pressing upon the bladder ever produced any particular symptoms.

Anteversion will produce symptoms only in cases where the uterus is at the same time displaced downward to the extent of one degree or more. Symptoms are produced only when there is descent of the organ in both forms of anterior displacement.

With regard to retroversion, symptoms are present in a large proportion of cases, but not in every one by any means. A retroflexion produces more symptoms than does retroversion because there is more congestion of the uterus, and also it is more apt to be accompanied by prolapsus of the ovaries.

There is another displacement which is not mentioned very much but which produces symptoms, the chief of which is sterility. It is a combination of retroversion and retroflexion. He had always taken it to be a congenital condition, the ligaments never having developed in proper relation.

With reference to the causation of these different displacements, he thought that Dr. Foster had touched the key-note with regard to one cause, namely, the contraction of one or other of the ligaments, and chiefly the utero-sacral and lateral ligaments in the production of lateral or retro-displacements. He thought that few anteversions depend upon contraction of the lower folds of the utero-sacral ligaments just above Douglas' pouch. These cases, however, are exceedingly rare. He had seen retroflexion and retroversion in young unmarried women, but they were of very rare occurrence.

With regard to pessaries, he should at once take issue with Dr. Foster concerning the lever principle. He would agree with him perfectly that the effect of the retroversion pessary was to push the posterior vaginal wall backward and therefore antevert the uterus, but he could not help feeling that when the Albert Smith or Hodge pessary was used, lying loose in the vagina with its anterior bow loose, pressed down upon in the erect position, pressed by the full or the empty bladder, or the intestine full or empty, that this instrument must necessarily tilt up at the other extremity, and in that way he thought it illustrated the action of the lever principle.

He used but few anteversion pessaries, but that which he favored most was the open cup of Thomas. For anteflexions he used the closed cup, as it prevents the uterus from flopping together. He had seen good results from gradually heightening the cup as the displacement was gradually being overcome.

For at least ninety-five per cent. of retroversions he preferred the Albert Smith pessary. If there is flexion he prefers a pessary with a thick bulb—a simple Albert Smith pessary with a thick bulb behind. He might change the curve of these pessaries very often, but they were substantially the same instrument. Dr. Chamberlain and Dr. Foster had both said that sharply curved pessaries did not work well. To this Dr. Mundé thought there might be some exceptions, but as a rule probably they are not well worn. Of late he had found the Cutter pessary to serve him a very useful purpose in the treatment of retroflexion. He admitted there was a tendency to push the cervix forward, but if the curve at the lower end of the instrument is almost at a right angle, this tendency will be mostly overcome. The Fowler pessary he had used, but he did not like it.

With regard to the substance from which pessaries are made, he had tried celluloid and had had the same experience related by Dr. Chamberlain, namely, that the instruments cracked and became unfit for use, consequently he had returned to the use of hard rubber.

THE CHAIRMAN said with reference to the pessary acting as a lever, that it must necessarily do so if there was a fulcrum. If the broad ligaments are tense, the uterus high up, and the vagina keeps positively its contracted condition, then he could see how the Albert Smith pessary acts upon the lever principle. On the other hand, when the ligaments are stretched and the vaginal wall is relaxed and depressed, he could not understand where the fulcrum could exist, and therefore the instrument does not act as a lever.

DR. CHAMBERLAIN, in closing the discussion, said he had no criticisms to offer to Dr. Foster's remarks, except possibly upon the lever action of the instrument. He felt confident that there is such a lever action, perhaps not to a great extent, nor exerted by all instruments.

With regard to the points made by Dr. Mundé concerning the normal position of the uterus, they were substantially what he had stated in his paper, and did not conflict with any position which he attempted to take. He thought there was a good deal in the idea that the position of the uterus in individual subjects was largely influenced by the contour of the abdominal wall, the impulse obtained from the descent of the diaphragm, together with the varying degree of the tension and weight of the intestines.

The Section then adjourned.

TESTING FOR ALBUMINURIA.—D. J. C. Neal, of Archer, Fla., writes: "Is it on record as diagnostic of albuminuria, that a portion of urine, if shaken in a test-tube or bottle, develops a foam or 'beady' stratum on top—quite permanent if the albumen be in any quantity? This occurs early in the case, long before the dyspnœa pallor or anasarca, and is perhaps the first indication of the disease." We believe that the same appearance results from the presence of pus and mucus.

Correspondence.

THE CHANCES OF THE YOUNG PRACTITIONER AND THE CLINIC SYSTEM.

To the Editor of The Medical Record.

Sir: The letters recently published in The Record upon the abuses of medical charities, and especially the editorial comment on those letters, have brought to the front a subject of the most immediate interest to practitioners. We are clinic-ridden and dispensary-ridden; our means of livelihood are taken from us, and the public is pauperized to an extent which is almost incredible. So great is the contest for "material" that all manner of inducements are offered to get people to receive medical charity. "Free dispensary," "free hospital," "an experienced physician sent free of charge to confinements," such are some of the advertisements which, in various languages, are displayed in the streets. People of the middle classes have become so accustomed to receive the best medical services for nothing, that it is no wonder they prefer the clinic to the physician's office. And it is a scandal to see some of the patients who frequent these clinics. I can vouch for the fact that in some of them, at all events, it is by no means uncommon to see "charity" patients kid-gloved and dressed in silk. And they must all be treated, and most carefully and tenderly treated, too; for the professor (who has a lucrative private practice) wants all the material he can get.

There are at least 111 institutions in New York City in which free medical attendance is offered practically to all who choose to apply for it. It is safe to say that the existence of fully one-half of them is an infringement upon the rights of a very large proportion of medical practitioners. Fully one-half of all the patients treated at these institutions could pay a fee and ought to pay one. Surely the prices for which some of us have to work are within the reach of the slenderest purse.

But a small minority of the profession is directly interested in keeping up and extending these institutions. Probably not over ten per cent. of the city practitioners are connected with them. I do not include the younger men, the assistants, etc., in my estimate—for they are compelled, merely as a matter of self-protection, to take part in them—and they recognize and feel, perhaps more than others, the injury that the system works. It is but another form of the old problem, the interests of the powerful few are opposed to those of the weak many. The problem has been solved in other spheres by the elaboration of one idea—co-operation; and that, I take it, is the sole thing that will help us here. Individual action is of small avail, but united protest may do much.

This, it seems to me, is our only hope. If there is displayed enough of unselfishness to permit of union for so desirable an object, much may be done to check an evil that grows in extent year by year. If there is not, why then, each man for himself, and "*Væ victis!*"

It is hardly for me to say just what lines such a movement should follow; but I would suggest the following points:

First.—Medical services should no more be gratuitous than are legal and clerical ones. A poor client can have a lawyer "assigned" to him; but he must apply publicly to the courts for it, and he must sue in a special manner, "*in forma pauperis:*" such services are very rare, and any claim for them is well investigated before it is allowed. Clergymen go as preachers and missionaries among the poor, but they get their pay, whether it comes from mission boards or from subscription lists. Hospital internes, dispensary physicians should be salaried officers, and the benevolent individuals who pose before the public as the main supporters of such institutions, could do so with a better grace when two-thirds of the charity does not come directly from the pockets of a few medical men.

Second.—Dispensaries, hospitals, free clinics are superabundant, pauperizing the people. Their extension is objectionable, and the existence of many of them is unjustifiable. The six large dispensaries have the whole city districted and covered by their physicians; every branch of medicine receives attention from them, and they might readily be made to supply the material necessary for clinical teaching.

Third.—Some system should be elaborated by which medical charity would be restricted to paupers. I distinctly claim that one-half, if not more, of all the free patients in this city are not paupers in any sense of the word, they would resent such an assertion, and they are no more entitled to free medical services than they are to free clothes, or free bread and butter.

Such, it seems to me, are the main points that demand atrention. I trust to the expression of other views for extension, or, if need be, for correction.

G.

HOT-WATER INJECTIONS PER RECTUM TO ARREST UTERINE HEMORRHAGE, TO PREVENT MISCARRIAGE, AND TO ALLAY AFTER-PAINS.

To the Editor of The Medical Record.

Sir: Having for the last four years used hot water, *i.e.*, water at a temperature ranging from 110° to 112°, with perfect success in such cases as are mentioned above, I have determined from time to time to give my experience to the profession, but not being fond of writing, have delayed, and was only prompted to do so this night on reading an article in The Medical Record of December 15, 1883, p. 688, headed "Failure of the Hot-water Douche in the Treatment of a Case of Post-partum Hemorrhage." Having never tried the hot vaginal douche in such cases, for the reason that I consider it not the most rational way of applying the hot water, I will give the treatment which I have practised, and which, so far as I am aware, is original. The first case so treated I reported to the Augusta Medical Society about four years ago, and as none of the members at that time had ever heard of the treatment before, I hope I may be excused for thinking I had made a discovery which might be of benefit to mankind, or at least womankind. Writing from memory alone, my first case, Mrs. T——, I was called to her at midnight, found her in a pool of blood, very weak, and still bleeding freely. Her youngest child four years of age. I was informed that she had missed her menses once or twice preceding this hemorrhage, but thought nothing of it, as she had done so before, and then came all right. I made a digital examination, found os dilated enough to admit end of finger; gave fluid extract of ergot in 3 j. doses, then ergot fluid extract, aqua, āā, 3 ss., with hypodermic syringe, raised foot of bed, etc. Failing with all, after working for four hours, the idea occurred to me to give a hot enema in preference of trying the vaginal douche, for at best the hot vaginal douche is a very tiresome proceeding, if properly administered, both to the patient and the operator, to say nothing of wetting up everything, as not one patient in forty has a rubber cloth and other conveniences. Again, the injection of warm water, from a pint to a quart, into the rectum, is easily done and is over with, and you then have the water where you want it and not where you don't want it, viz., in the bed.

But my main object in injecting warm water per rectum is to put the water in as near contact to the womb and retain it there as long as it is possible for the patient to hold it, and if the first feels uncomfortable, allow it to be passed off, of course, but replace it with another, which will be better retained. In this case the first was retained and acted like a charm. All hemorrhage stopped for the time; it returned once during the next

day, but was again checked with another hot injection. The second day the patient passed a tumor about the size of a large hen's egg, which proved, upon examination, to be a blighted ovum. And here I would remark that a great many of our profession seem to overlook the fact that a large number of cases of uterine hemorrhage are caused by contractions of the womb, as was the case in this instance, and those who will persist in treating all cases with ergot, packing, and punching, may naturally expect to do more harm than good in many instances.

CASE II.—Mrs. S——, young mother, in full health, first child six months old, at the breast. Informs me she is all right except that she floods every two weeks. Has been treated by her physician with ergot, etc., to no effect. The trouble dates from birth of child.

Treatment.—Advised her to take an enema of hot water every morning. Later she informed me that the hot water brought her all right. I judge it did, as she conceived in three or four months, and at term was delivered of a healthy child.

CASE III.—Mrs. D—— called me to attend her in confinement of this her third child. Found her in pains and the os dilated, size silver twenty-five cent piece. Informed her that the presentation was good, and to have an easy time would advise her to take a large warm enema to empty the bowels. On returning to the room she informed me that, to be doubly sure, she had taken two enemas of real hot water. The consequence was she had not another pain for ten days, at the expiration of which time I delivered her of a fine, large girl, weighing ten pounds, but I did not suggest to her any more hot water.

CASE IV.—Mrs. M. B——. Found her flooding, not excessively. Showed me a clot of blood that had been passed, and informed me that she had passed others. Not being certain if she had miscarried or not, had her given the hot water per rectum. Bleeding ceased, and in about six months I delivered her of a well-matured boy. I should have stated that she knew she was *enciente* when I was called in to attend the hemorrhage, having missed her courses and suffered with morning nausea.

Well, I could recount other cases, but imagine I hear you say "Don't, please don't." However, you must in all fairness allow me to give my theory of the action of hot water so used. It is not that the water so used arrests hemorrhage by producing contractions of the womb, for I believe just the contrary—*i.e.*, I believe that warm water of temperature 110° to 112°, brought in close contact with the womb, either per rectum or by injections into the bladder, will arrest contractions of the womb, and at the same time arrest hemorrhages by driving away the blood from the surrounding parts, equalizing the circulation, and reducing any existing congestions.

Respectfully, A. E. DUGAS, M.D.

247 BROAD STREET, AUGUSTA, GA.

THE PROPOSED MONUMENT TO DR. J. MARION SIMS.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR: A writer in a recent number of your journal suggests that a monument should be erected in memory of Dr. J. Marion Sims, and that the proper place for it is the Central Park, New York. While the memory of Dr. Sims does not require any bronze or marble for its perpetuation—for his name is immortal—it would, it seems to me, be highly proper that such a mark of respect should be paid to the character of a man who accomplished so much for his profession, and who was such an honor to his age and country. Monuments are built not for the benefit of the dead but as a stimulus to the living, to excite their ambition, and to rouse them to the performance of noble deeds, by imitating the example of those who, while upon earth, spent their lives in doing good to their fellow-beings. As Dr. Sims was the founder of the New York Woman's Hospital, it is highly proper that the medical profession of New York should take the initiative in this matter; and while the members of the profession in all parts of the country should, *nay would*, regard it as a privilege to contribute to so praiseworthy an object, an especial appeal should be made to the women in all parts of the world who have been the recipients, either directly or indirectly, of the benefits of Dr. Sims's genius and skill. I would respectfully suggest that a committee, consisting partly of gentlemen and partly of ladies, be at once formed to take charge of the matter and to give it definite shape. As soon as this object is effected it will afford me pleasure to send you my check for $100.

I am very respectfully, your friend,

S. D. GROSS.

PHILADELPHIA, December 24, 1883.

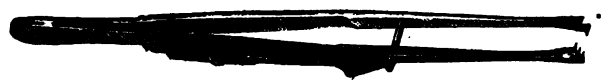
New Instruments.

A NEW TISSUE FORCEPS.

BY B. COWPER SHENSTONE, M.D.,

BROOKLYN, N. Y.

THE accompanying woodcut illustrates a new style of tissue forceps made for me by Mr. Fred. Haslum, of this city. I, with others, have felt the necessity, in operating upon the cervix, of an instrument to steady the tissues through which the needle must pass more perfectly than the counter-pressure hooks will do. This instrument



combines the counter-pressure hook and tissue forceps, both blades of which are perforated for the passage of the needle, while the tissues are held steadily in the grasp of the forceps with as much or little firmness as may be desirable. It has become almost indispensable in my hands, I therefore deem it worthy of presentation to the profession, and hope it may in a small degree simplify operations of that class.

THE EQUABLE SCROTAL COMPRESSOR.

BY G. MILIANO, M.D.,

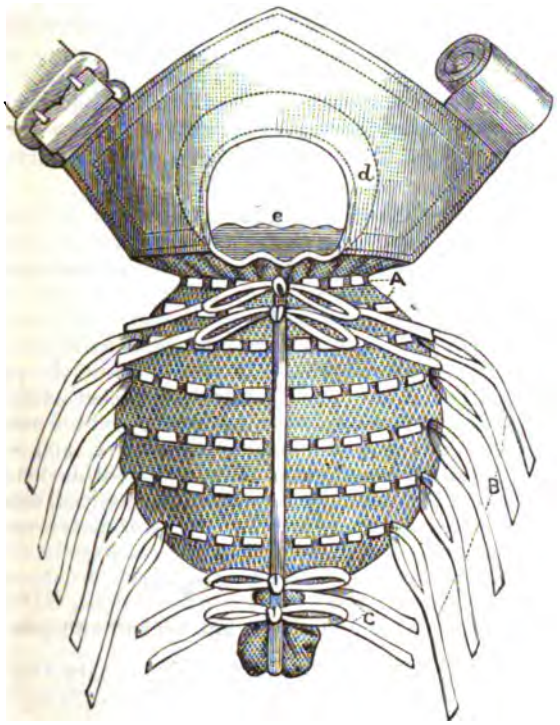
NEW YORK.

BELIEVING that support and pressure are the main factors upon which we are to rely for controlling and removing the effects of increased vascularity in scrotal diseases, I devised, many years ago, an apparatus having such ends in view. Its favorable reception by my professional brethren impresses me with the fact that the principle upon which its construction is founded is sound. Since its first introduction to the medical public some improvements in construction have been made which I believe will increase its usefulness and extend its range of adaptability.

It is perhaps best to describe the perfected apparatus as it now is, and its mode of application, in order to come directly to the purpose of the present communication. The cut herewith represented gives a better idea of its construction than can be done by mere words. It is, in brief, a netted silk pouch for the scrotal organs, which can be compressed in any portion at will by shoving the encircling tapes in its meshes, and suspending the whole by means of bands to the waist. The penis is received in the circular opening in front, which opening can be enlarged in any direction for forced displacement of the organ without weakening the fabric. The posterior and upper edge of the pouch is provided with

a cushion to modify pressure beyond the scrotum and against the perineum.

The first step in applying the apparatus is to secure for it close apposition to the scrotal organs. This is begun by taking the two ends of the upper lacings on either side (marked A), and by pulling uniformly on each the diameter of the upper part of the appliance is contracted and closed around the spermatic cord, above the testes, so as to prevent the latter escaping. The bandage being shirred snugly, is held in position by tying the lacings in a bow-knot under the penis. The next step is to



similarly shirr and tie the lowest set of lacings, which closes and shortens the bandage below the testicle (marked C). This produces counter-action and compression against the upper set of lacings, care being taken to exclude any fold of the scrotum.

The next lacings above the lowest set (marked B), which encircle the middle of the scrotal organs, should be shirred *only* snugly enough to be comfortable. In a few hours, according to the nature of the disease (as in the reduction of varicocele) the compression acts upon the absorbents, and the enlargement of the scrotal organs begins to abate. As this reduction of the scrotal contents progresses, the sets of lacings (marked A and B) are to be tightened in order to maintain equable compression.

It is well known that in cases of epididymitis the disease must be arrested at once, or the epididymis will become indurated and closed, while the excretory duct of the testicle loses its function; in other large swellings, where rapid reduction is necessary to effect a cure, a bandage of large size containing more lacings becomes indispensable. In such cases the same rules for applying and shortening the bandage as above stated will be followed. They are manufactured of silk, linen, and cotton fabrics, mixed, and for ordinary purposes are made in three sizes, No. 1 being the smallest, No. 2 medium, and No. 3 the largest.

207 East Thirteenth Street, N. Y.

The Cartwright Lectures for 1884 will be delivered by Prof. Burt G. Wilder, of Cornell University, at the hall of the Young Men's Christian Association, corner of Twenty-third Street and Fourth Avenue, on the evenings of February 2d, 4th, and 6th. The general subject will be "Methods of Studying the Brain."

Navy News.

Official List of Changes in the Medical Corps of the Navy, for the two weeks ending December 29, 1883.

Dale, F. C., Passed Assistant Surgeon, detached from the Coast Survey Steamer McArthur and ordered to the U. S. S. Adams at Sitka, Alaska.

Curtis, L. W., Assistant Surgeon, detached from the Adams and ordered to the Coast Survey Steamer McArthur.

Ross, J. W., Surgeon, detached from the U. S. S. Iroquois and ordered to the U. S. S. Onward at Callao, Peru.

Hibbett, C. T., Passed Assistant Surgeon, detached from the Onward and ordered home.

Gihon, A. L., Medical Director, to the Naval Hospital, Washington, D. C.

Rush, Charles W., Passed Assistant Surgeon, U. S. S. Colorado, granted sick leave for three months.

Medical Items.

Contagious Diseases—Weekly Statement.—Report of cases and deaths from contagious diseases reported to the Sanitary Bureau, Health Department, for the two weeks ending January 1, 1884:

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Cases.								
December 25, 1883.....	0	26	65	1	42	40	0	0
January 1, 1884.....	0	8	57	4	30	36	0	0
Deaths.								
December 25, 1883.....	1	5	6	2	8	24	0	0
January 1, 1884.....	0	6	9	3	10	20	0	0

Peculiarities of Chinese Patients.—According to Dr. Brown, of San Francisco, the Chinese must make very good patients, for they invariably carry out instructions to the letter, are very grateful, and always pay their bills. Constipation is almost unheard of among them. Their children at birth are usually much smaller than white babies, six pounds being the average weight. They use paper on the lying-in bed as a protection, and thin paper as napkins for the lochia. It has the appearance of a muslin fabric, being thick and soft. It is prepared, however, from a stout paper of a light brown color, smooth, and bearing no resemblance to that in use. The mode of preparation consists simply of crumpling and rubbing it with the hands. Being tough and thick, it is completely transformed by this process, and makes a soft fabric, almost impermeable to water and admirably fitted for temporary protection to the bedding, one sheet being replaced by another as soon as it has become soiled. Lacerations of the cervix are very rare among them.

The Value of Vaccination against Anthrax.—A commission consisting of Professors Maggi, G. Sormani, and E. Perroncito, and Dr. Nosotti, was appointed to investigate the prophylactic value of vaccination with the cultivated anthrax fluid by the method of Pasteur. They experimented with calves, heifers, and lambs. Their conclusions are as follows (*British Medical Journal*): 1. Pasteur's method of carbuncular vaccination is prophylactic of carbuncle in the bovine race. The six vaccinated animals received no harm from repeated injection of carbuncular blood, while the four unvaccinated had high fever and great local swelling. 2.

The heifers virgin to carbuncular injection, subjected to inoculation of blood and carbuncular virus, presented febrile reaction, but did not die; the immunity which the two first heifers of control, the malady caused by the injection of carbuncular blood having ceased, acquired in presence of repeated injection in the second experiment, would seem to show that the morbid process was really carbuncular in nature. 3. Vaccination with attenuated lymph (No. 1, Pasteur), although repeated, caused no general or local reaction. This allows us to suppose that its action is so slight as to justify the attempt, already successfully made by Perroncito, to omit the first vaccination, and thus gain valuable time. 4. After using the stronger lymph (No. 2, Pasteur), its action should be verified by observing the temperature for a few days. It is reasonable to suppose that the preventive effect is limited to those animals in which a general reaction is developed. If there be no reaction, therefore, the vaccination must be repeated. 5. Cool weather is best for the vaccination; in the heat of summer, the occurrence of septicæmia is more to be feared. 6. The microscopic examination of the vaccine liquid prior to its use is necessary to prove the absence of bacteria of putrefaction, which, while they might destroy the prophylactic action of the vaccine for carbuncle, if injected, might easily give rise to disastrous consequences.

Voluntary Inhibition of the Heart's Action.—Dr. C. A. Brooks, of Harrison, O., writes: "There is a man in my neighborhood who claims he can control the action of his heart by will-power. He has tried the experiment several times, and once he was hardly able to detect his heart beat, and scared himself badly, fearing he would not be able to gain control of its action again, although he did not lose control of it. Do you know of a precedent to this? Is it not rare? He is about forty-five years of age, German, healthy and intelligent. He thinks it is a rarity that could be turned to good account by exhibiting himself." Most physiological works relate the history of an Englishman, Cole Townsend, who could voluntarily check the action of his heart until pulse and heart action were almost imperceptible. He died in one of these attempts. Several other cases have been reported, and it is probable that voluntary inhibition of the heart's action is in rare cases possible.

Cancer and Osteo-Sarcoma among Cattle.—Rudolphus Fuller, veterinary surgeon, of Grand Rapids, Mich., writes: "In a recent issue of The Record you notice the occurrence of cancer among the cattle of the Chicago stock-yards. The question-mark (?) after the word cancer would seem to convey the idea that a doubt of such a case existed in your mind. I have practised veterinary medicine for a period of forty-three years, taking notice of the analogies between the diseases of animal and those of man, and can assure you that many acute and chronic diseases are the common inheritance of both, and that there are no material differences in the manifestation of certain diseases in the one from the same diseases in the other. I have examined some of the cattle in question, and can testify that they were affected with the disease known as "big head," which is an osteo-sarcoma. This disease commonly commences at the fangs of a tooth, forming at first a white fibrous growth which expands the jaw. The bone enlarges, sometimes to a great extent, forming a shell containing many cavities filled with fleshy fibrous tissue, which subsequently degenerates into a yellow pulpy substance and finally discharges as a very offensive watery and bloody pus. Shortly after the bone begins to enlarge, the glands behind the jaw and at the root of the tongue begin to harden, and increasing in size develop into tumors which unite with the bone, forming one large mass, and giving to the head the appearance from which the common name "big head" is derived. After the disease has existed for some time the cattle affected with it become much wasted and eventually die. In one of these cattle the disease affected the same portion of bone on each side, though one side was much farther advanced than the other, pointing to a constitutional tendency as a cause in the disease. Though no microscopical examination was made of the diseased tissue, I think that the history and appearances in these cases would warrant the conclusion that the disease was cancer. Horses are frequently affected with the same disease, which runs the same course and always terminates fatally. Though it is yet to be demonstrated that the flesh of cancerous animals is an unwholesome article of diet, the citizens of Grand Rapids are under great obligations to Dr. De Wolf, sanitary inspector of Chicago, for the information that some of these cattle were being shipped to this city. Inspectors should be appointed in every town and city to work in concert, in order to protect the public against ignorant and unprincipled rascals, who, to make a dollar, would be willing to send disease and death into every house."

Phosphorus and Red Hair.—Dr. James S. Tracy, of Millbury, O., writes: "Once in a while in one's practice something happens so different from bad roads, poor pay, and sleepless nights, as to cause for a time the every-day experiences to be forgotten. A case in point would seem to present a new contra-indication to the administration of phosphorus, at least it is new in this part of the country. A lady patient, whom nature had adorned with a color of hair which considerably out-auburned auburn, needed, it was thought, phosphorus, and was accordingly given some pills containing that medicine. After taking them faithfully for a time, she noticed, either in the excreta or some place else, the phosphorescence, and rightly divining that the pills were causing the phenomenon, returned, and expressing a desire to discontinue the treatment, gave as a reason for so doing that she was afraid the medicine would get into her hair and ignite."

Some Notes upon the Treatment of the Opium Habit.—Dr. A. P. Meylert, of this city, sends us the following: "The opium habit, in my experience, yields readily to the method of gradual reduction by prolonging the period between consecutive doses. The longer the delay the less of the drug is required. One patient, an habitué of ten years, taking ten drachms of Majendie's solution every day, in two doses, was thus reduced to fifteen minims daily in seven days, and the drug was discontinued within ten days. Another, who had for seven years taken six drachms of tincture of opium daily in two doses, was brought down to *nil* in less than a fortnight. A neurosthenic patient had for twelve years been taking morphia subcutaneously, latterly seven to nine times in twenty-four hours, aggregating sixteen to eighteen grains daily. It was practically discontinued in about three weeks, the patient remaining under observation ten weeks altogether. Her physician informs me that she has steadily improved since her departure three months past, and considers herself cured both of the habit and the disease. A patient who had for thirteen years taken an ounce and a half of chlorodyne daily in one dose, discontinued the narcotic altogether in less than two weeks. I have found no specific for the disease. Treatment must be adapted to individual cases. The neuralgic pains and the distressing general hyperæsthesia are usually soon relieved by quinine, two to five grains, and extract of cannabis indica, one grain, repeated in three or four hours if necessary. Warm baths are also very effective. Galvanism, the continuous, uninterrupted current, given in the bath, is much enjoyed. Nausea generally yields quickly to small, frequently repeated doses of peptonized beef, acidulated. Insomnia ceases to be troublesome when the neuralgia and nausea are relieved. I am satisfied that the easiest and best general method of treatment for opium habituation—one which may be adapted to all cases—is gradually to increase the interval of narcotic administration, simultaneously diminishing the daily dose.

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Original Articles.

APOPLECTIC SEIZURES.

THEIR DIAGNOSIS AND TREATMENT.

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DUJARDIN-BEAUMETZ ("Leçons de Clinique Thérapeutique," vol. iii., p. 254), improving upon the work of Schützenberger (Dict. Encyc. Sci. Med., Art. Apoplexie), has defined apoplexy as a "more or less sudden, complete, and persistent suspension of the cerebral functions, produced by an internally originated lesion of the circulatory apparatus acting directly upon the brain."

This excludes the effects of simple commotion or contusion of the brain on the one hand, and the consequences of asphyxia, syncope, and toxic forms of coma on the other. The perversion or loss of cerebral function is declared in the sensory sphere by a more or less complete arrest of sensation, perception, conception, and the reasoning faculties; while in the department of motility the change in cerebral function is revealed by the occurrence of muscular paralysis. This may occasion loss of power over only a few muscular groups, or it may involve the whole voluntary muscular apparatus of the body. The movements of circulation, respiration, and secretion—all movements, in a word, which are independent of cerebral action—persist so long as life itself is not overwhelmed.

The onset of apoplexy is usually quite sudden. I once saw a coachman, a middle-aged man, whose horses became restive, giving him some difficulty in restraining their movements; suddenly he fell headlong from his box, and was picked up in a state of complete coma, with resolution of all the limbs. He died in a few hours, and the autopsy revealed an extensive rupture of the substance of the right hemisphere of the brain, with hemorrhage into both lateral ventricles. The arteries of the brain were diseased by alcoholic excess, and it is probable that the muscular exertion due to the effort to stop his horses, caused a sudden and extensive rupture of those blood-vessels without any special premonitory symptoms of apoplexy. Sometimes, however, there are such forewarning symptoms. A gentleman, about fifty-eight years of age, who had previously sustained an apoplectic stroke, called at my office one day, complaining of dull pain in his head, with bright flashes of light before his eyes, humming in the ears, a sense of weight in the limbs, and a vague anticipation of evil oppressing his spirits. I advised him to go home as speedily as possible, and to employ such derivative measures as would tend to relieve the evident determination of blood to the brain. He accordingly went home, retired to his room, and laid himself in his clothes upon the bed. In less than half an hour he became suddenly unconscious, and died in a few minutes.

In certain cases, though the onset is quite sudden, it is not instantaneous, and the abolition of cerebral function is comparatively gradual and progressive. A gentleman, about fifty-five years of age, while writing at his office-desk one day, had occasion to cross the room for something. He laid down his pen, arose from his chair, took two steps, tottered, turned around, supporting himself with one hand upon a table, and sank back into his chair. He asked for his son, who was occupied in an adjacent room, and when the young man came in he said, "It is all up with me." On examination his side was found to be paralyzed. He quietly gave directions for the completion of the work upon which he was engaged, and was then removed to his house, where, in the course of a few hours, he became gradually insensible, and died the next day.

Sometimes, however, the attack, though alarming, does not thus progress to a complete paralysis or to a fatal determination. An elderly clergyman told me that one day, while engaged in the vigorous delivery of a sermon, he heard a noise as if a pistol had been fired in his head, accompanied by a sharp pain behind the right ear. Presently it seemed as if his left side were "going to sleep," and he found himself partially paralyzed upon the left side. He did not become unconscious, and was always able to walk with a cane; but it was more than a year before the paralytic symptoms disappeared.

The muscular paralysis which follows an apoplectic seizure is usually hemiplegic; but it is often limited to a single limb, constituting monoplegia. I once treated an old negress, whose vivacity was unfailing, and whose limited intellectual faculties did not seem to have been enfeebled. She woke up, one morning, feeling as well as usual, but unable to move her left arm. She never recovered the use of that member. Again, it may be the faculty of speech which is thus stricken by the cerebral lesion, the patient remaining permanently dumb, though he may recover, more or less completely, the use of his other faculties. These mutilations of the function of expression form a class of phenomena which require consideration by themselves.

It is occasionally very difficult to decide whether the condition of the patient is due to apoplexy or to some form of poisoning. I once saw a middle-aged man who had been picked up on the prairie outside of the city, and was brought to the hospital in a state of complete insensibility and resolution. He had vomited, and had also evacuated his bowels into his clothes. His bladder was empty. His face was purple and puffy. The pupils of the eyes were contracted; respiration was slow and stertorous; the pulse was feeble and of moderate speed; the skin was bedewed with perspiration. Was it a case of alcoholic poisoning? There was no smell of liquor about him. Was it opium poisoning? The pulse and respiration were too rapid for that. Was it uræmic coma? Urine could not be obtained for examination because the bladder was empty. Was it apoplexy? Both sides were alike flaccid and motionless. The temperature was rising rapidly. Might it not be a case of pernicious malarial fever? Death occurred after a few hours, and the autopsy revealed a clot under the pons Varolii.

Successive seizures are not unfrequent. These occur usually at considerable intervals, permitting a degree of recovery which to the superficial observer may seem to be complete; but sometimes the intervals are short, as in the case of a buxom lady, forty years of age, who awoke one night in a state of agitation, with paralysis of her right side. She could not speak, but she could make a noise. The next day she seemed better—could sit up and read a letter. For two days she thus improved, and then came a second attack, which destroyed consciousness, sensibility, and all power of motion on the right side. When I first saw her, ten days after the attack, she was in this

condition, and presented no sign of perception excepting such as might be indicated by a tremulousness of the eyelids and the discharge of a tear as I counted her pulse.

The attack is usually caused by the result of internal disease; but a similar condition may be produced by external violence. A little boy, eighteen months old, was brought to my clinic with complete hemiplegia. He had fallen backward from a chair upon which he was standing, and was picked up insensible, with a great bump on the back of his head. He soon began to improve, and at the end of a year he could walk quite well, with only a slight drag of the foot, which would not be noticed by any one unaware of the accident which had occurred. For a similar case, but characterized by a more rapid recovery, see *Le Progrès Médical*, September 8, 1883, p. 719.

But in certain cases recovery is far from complete. It sometimes happens that after several weeks of partial convalescence the paralyzed limbs become gradually deformed by contractures of their muscles. The fingers become forcibly flexed into the palm of the hand, the hand is flexed at the wrist upon the forearm; the forearm is pronated and flexed at the elbow, and the upper arm is drawn closely to the side of the body. Finally, a somewhat correspondent series of contractures manifests itself in the lower limb, crippling the patient for life. In this condition one of my patients, a gentleman over seventy years of age, has now passed the last four years of his life. His control of the bladder is diminishing, and his mental capacity is nearly gone, showing a most extensive process of degeneration subsequent to the original seizure. In another case which came under my notice, the hemiplegia being upon the right side, and accompanied by aphasia, the upper extremity became permanently paretic, but the lower limb recovered sufficiently to allow comfortable walking for nearly fifteen years before death. In this instance the patient could read, and could hear, but the power of articulate utterance and of writing were permanently destroyed. On one occasion, however, it became desirable to secure his signature to a legal document. The papers were laid before him, their contents were explained, and his signature was requested. He made the greatest effort to write, but without success, becoming greatly agitated in the attempt. Next morning he arose early, went down-stairs before any of the family were awake, and signed his name in as clear and legible a script as he had ever written. His case was complicated with post-hemiplegic epilepsy—the convulsions recurring at intervals until death. Unfortunately no post-mortem examination could be obtained. It would seem as if the accidental and temporary return of ability to sign his name had been an incident comparable with the so-called "associated movements" which are sometimes observed after hemiplegia, when the patient raises the paralyzed arm during a movement of gaping or sneezing—a function of the purely automatic apparatus, independent of ordinary cerebral volition. But my space will not permit further discussion of such phenomena in this connection.

As a consequence of certain apoplectic seizures, followed by hemiplegia, various rhythmical movements of the paralyzed or paretic limbs are occasionally observed. A large and powerful man, between fifty and sixty years of age, started alone one winter day to go from a lumber-camp in Northern Wisconsin to another station, distant about fifteen miles. He rode one horse and led another. It presently began to snow; the track became obliterated, and the traveller found himself lost in a northern snow-storm, with a bitter wind rapidly lowering the temperature. He finally dismounted under a tree, where he made the two horses lie down on each side of him, and drew a large tarpaulin over the whole group. He soon became unconscious, and when he awoke, three months afterward, he found himself in a hospital in St. Louis, with complete left hemiplegia. He then learned that on the third day of the storm his friends from the camp had found him insensible in the snow, with one horse dead by his side, and the other standing over him. They carried him, as soon as possible, to the nearest settlement, whence he had been finally transferred to St. Louis. When I saw him it was about three years after the attack. The patient was intelligent, and could walk with a halting gait, but there was partial contracture of the pronator and flexor muscles of the forearm, with rhythmical movements of the thumb and fingers, constituting a form of what has been described as post-hemiplegic chorea.

It is sometimes observed that during the evolution of paretic dementia, the patient may become quite suddenly insensible and motionless for a time. I once attended a gentleman, aged about fifty-seven, who for a year after a sunstroke had manifested symptoms of progressive general paresis. He one day fell down upon the floor in a state of unconsciousness, with contracted pupils, slow and labored respiration, puffing with the cheeks, and conjugated deviation of the eyeballs. He was placed upon his bed, and, after several hours, gradually recovered consciousness and the power of motion, living several months longer before his death. It is highly probable that in this case there was a sudden and violent congestion of the brain without vascular rupture. Such was evidently the fact with an old man, seventy-one years of age, to whom I was called at an early period in my practice. He was insensible, breathing with slow and puffing respiration, swollen veins, and suffused eyes. One arm was motionless, but with the other hand he was continually fumbling at the genitals. Two excellent physicians had already pronounced the case hopeless, and had left the scene of action. On my arrival, not knowing of their previous visit and unfavorable opinion, I at once proceeded with all the enthusiasm of youth to carry out the directions laid down by Sir Thomas Watson. Three drops of croton-oil were laid upon the root of the old man's tongue, and his temples were liberally festooned with leeches till I could not but think of the poet's exclamation—

"Shake not thy gory locks at me!"

Presently the muscular agitation of the sick man was diminished; his cheeks ceased their puffing; finally the bowels were evacuated; and after a few hours my patient became conscious. He gradually recovered, and I frequently saw him afterward enjoying himself in his garden, apparently as well as before the alarming attack which had so seriously threatened his life.

Obstruction of the cerebral circulation, by plugging of the arteries of the brain with embolic masses derived from the valves of the heart, is an occasional cause of apoplectic seizure. It is well known that the left side of the brain is the favorite seat of such events. A hospital patient, male, aged about thirty-five, was suffering with acute endocarditis and articular rheumatism. Suddenly he became greatly prostrated, and his right side was paretic. When I first examined him, a few hours after this incident, he was conscious, and could still speak with considerable ease. But the next day his right side was totally paralyzed, he could not speak, and he lay in a condition of complete apathy, dying on the fourth day. Post-mortem section revealed endocardial vegetations and complete occlusion of the left middle cerebral artery. My friend Professor Brower was kind enough, recently, to show me the brain of a patient who had suffered with right hemiplegia about two years before death. He had also been aphasic for about two months, and had then gradually recovered the power of speech. The first, second, and third branches of the Sylvian artery were occluded with embolic masses, and that portion of the cortex nourished by them had become atrophied to such a degree that it seemed at first sight like the cavity of an old abscess.

The vessels of the brain may become obstructed by

a local thrombosis. This usually occurs as a result of the cancerous dyscrasia, or of some infectious disease. I once saw a gentleman dying with cancer of the rectum, who for several days before death experienced successive paroxysms of intense pain in the head, followed by temporary coma. After death the lateral sinuses and large veins in the vicinity of the Sylvian fissure were seen filled with thrombotic clots. Another of my patients, a young girl, aged fourteen or fifteen, died on the fourth day of scarlet fever. She became comatose and convulsed before death. The entire cortex and meninges of the brain were in a state of the most brilliant hyperæmia possible, and the superior longitudinal sinus was filled with clotted blood.

Somewhat analogous, yet quite different, is the condition sometimes presented in the course of tubercular meningitis. Such a little patient, a female, aged two years and six months, I have just seen, stricken with right hemiplegia during the course of a slowly wasting illness, in which she is nursed by a consumptive mother. There can be only one result, and post-mortem section in similar cases has often revealed a tubercular nodule, or a thrombotic vein, pressing upon a cerebral peduncle, or upon some equally important portion of the motor apparatus of the brain.

Tumors, especially those of syphilitic or cancerous origin, are said to be the occasional cause of apoplectic attacks, by reason of hemorrhage from their vessels; but I have never seen an example of this form of seizure.

Apoplexy may be caused by an abscess within the cerebrum. An old man was once placed under my care, who, in the course of a discussion with his wife, had received from that lady a blow upon the forehead with a tin dipper. The edge of the dish had inflicted a clean cut down to the bone, over the left eyebrow. There were no unusual symptoms at the time, but the wound manifested no inclination to heal, and after several weeks the bone became necrosed. Still the patient continued to walk about, until suddenly one day he became comatose, with right hemiplegia, and death on the third day. Examination of the body discovered an abscess as large as a pigeon's egg in the centrum ovale, under the middle frontal convolution of the left hemisphere. This extensive accumulation of pus occupied a clean cut cavity in the white matter of the brain, and had occasioned no symptoms worthy of note until the final apoplectic seizure.

Pitres ("Lesions du centre ovale," Thèse de Paris, 1877, obs. 1) has recorded a case in which hemorrhage into the right middle frontal convolution produced neither apoplexy nor hemiplegia.

The apoplectic attack may be very closely simulated by other diseases. It is worthy of note that after an epileptic fit a patient will sometimes appear to be hemiplegic as well as comatose. This counterfeit paralysis is supposed by Hughlings Jackson to be the consequence of neuro-muscular exhaustion during the convulsion. The history of the case, and the rapid emergence from a condition of insensibility will soon clear the diagnosis, except in the rare cases that are fatal during the period of coma.

Hysterical women occasionally pass into a sudden condition of seeming insensibility, which is sometimes accompanied by symptoms of hemiplegic paralysis. I was once called, in great haste, to a young girl of fifteen who had been subject to "fits." After a succession of these she had suddenly become apparently unconscious and completely paralyzed upon the left side. When I visited her the next day, the left side had recovered its motility, and the right side was now paralyzed, and also insensible from head to foot. The right forearm was contractured in a semiflexed position. I confidently announced a speedy recovery for the patient, and, sure enough, on the fourth or fifth night, while the family were devoutly praying for the restoration of their daughter and sister, the girl, who had been nearly a week speechless, paralyzed, and comatose, bounced out of bed upon her knees in the middle of the circle, praying louder than any of the rest of the party. This was considered a miraculous answer to prayer.

Severe forms of malarial intoxication sometimes produce a condition of coma, which can only with care be distinguished from the ordinary apoplectic seizure. I well remember several such cases which came under my notice during the civil war. Attention to the state of the temperature, and the evolution of the case were sufficient to establish the diagnosis; but it is easy to imagine that a brief observation of such a patient, without consideration of place, season, or history, might lead one into error.

Uræmic poisoning also frequently causes a degree of coma and resolution comparable with the severest forms of apoplexy.

It would be an easy matter thus to multiply illustrative cases, but I forbear. It is evident that the apoplectic state may be induced by a considerable variety of physical conditions. Careful analysis of numerous examples shows that apoplexy may occur as a result of cerebral anæmia, as a result of cerebral hyperæmia, as a consequence of hemorrhage into or upon the substance of the brain, and, lastly, as a result of various alterations of the blood may be ranked a variety of cases which so closely resemble the apoplectic seizure that they are sometimes admitted into the same general class. If mere loss of consciousness were the essential feature of apoplexy, it would be necessary to admit into our classification all cases of syncope, asphyxia, uræmia, epilepsy, and even hysteria; but there is an increasing tendency to exclude everything but the effects of direct lesions of the cerebral circulatory apparatus. For all practical purposes, therefore, apoplexy may be considered as the result either of cerebral congestion, hemorrhage, embolism, or thrombus.

The onset of the attack is usually sudden. When preceded by premonitory symptoms they appear in the form of sensory disturbances, such as giddiness, humming in the ears, flashes of light before the eyes, feelings of numbness, and general failure of cerebral function. The attack may be almost instantaneous, plunging the patient at once into a condition of complete insensibility and unconsciousness, with general paralysis of the extremities, slow and stertorous respiration, contracted pupils, conjugated deviation of the eyes, turgid countenance, skin bedewed with perspiration, incontinent rectum and bladder. The pulse may be full, slow, and regular, and in fatal cases usually persists for a little time after the cessation of respiration. The bodily temperature falls at first, but, if life is prolonged for a few hours, it again rises, and may ascend beyond the normal figure. Death supervenes in such cases either immediately or after the expiration of a few hours. Post-mortem section discovers either extensive hemorrhage into the substance of the hemispheres, with rupture into the lateral ventricles, or smaller hemorrhagic foci involving the structure of the pons Varolii or the medulla oblongata.

In many instances the seizure is less abrupt and overwhelming. Its onset is either more gradual or less profound. The patient feels compelled to lie down, and slowly passes into a condition of stupor, which may culminate in complete resolution and death, or which may, after a time, yield to convalescence and recovery. Long before either event the symptoms of hemiplegia become prominent, and a corresponding paralysis of sensation may also be demonstrated. When about to reach a fatal termination the symptoms deepen their intensity, and death occurs as in the fulminant seizure. When the reverse occurs, coma yields to stupor, and that to sleep, followed by a gradual return of sensibility and consciousness. The accompanying paralysis is more or less persistent—sometimes yielding in a few days or weeks, but generally continuing for months, or even during the remainder of life. Power of motion almost always returns first to the lower extremity, and may there finally become

more complete than in the upper extremities. In certain cases, three or four weeks after the attack, the flexor muscles of the paralyzed limbs begin to manifest symptoms of progressive contracture; the fingers bend into the palm, the hand is flexed upon the wrist, the forearm becomes pronated and drawn up near a right angle with the upper arm, which also is drawn closely to the side by the action of the muscles about the shoulder. The lower limb may, in somewhat similar manner, be deformed by contracture, but this is a later and less severe event. These late contractures must not be confounded with the early rigidity of the muscles, which is often remarked as an immediate consequence of cerebral hemorrhage, for they are the expression of a peculiar degeneration of the descending pyramidal tracts consequent upon injury of the motor zone of the cerebral cortex, or the underlying fibres of the corona radiata and internal capsule.

When summoned to the care of a case of apoplexy the first subject for consideration should be the nature and cause of the attack, for not every case of recumbent unconsciousness is apoplectic. Other diseases may occasion as complete loss of consciousness and power of motion. Prominent among these are syncope, asphyxia, epilepsy, puerperal eclampsia, uræmic coma, alcoholic intoxication, the comatose stage of the eruptive fevers, certain forms of gout and rheumatism, malarial intoxication, and the poisonous effects of opium, belladonna, lead, etc.

Syncope may be excluded by attention to the condition of respiration, which is noisy, stertorous, and active in apoplexy, but almost imperceptible in syncope. The circulation in the last is also reduced to the lowest ebb, while in apoplexy the pulse, though variable, is very evident, and there is frequently exhibited a strong tendency to venous and capillary stasis. To the syncopal category also belong those cases of collapse, followed by unconsciousness, which may supervene as a consequence of cerebral anæmia.

Asphyxia may be recognized by the peculiar respiration characterized by dyspnœa, with prolonged expiratory efforts culminating in labored inspiratory movements and death. The respiration of apoplexy is often retarded, but it is attended with symptoms caused by cranial nerve paralysis—puffing expiration, tracheal rattle, and, sometimes, the Cheyne-Stokes phenomenon.

Epilepsy often presents, during the post-convulsive stage of the attack, appearances which closely resemble the features of apoplexy. Hemiplegia even may occur after epileptic convulsion, but its duration is brief. The history of the case and the rapid disappearance of coma are generally sufficient to enlighten the diagnosis. It is true, however, that certain cases of apoplexy are complicated with convulsion, and epilepsy also may intervene in the course of the life of certain apoplectic patients.

In like manner the history and concomitant circumstances of puerperal eclampsia can scarcely fail to differentiate the case from apoplexy. As in the convulsive form of epilepsy, the post-convulsive condition may closely counterfeit the coma of apoplexy, but the evolution of the case is different. Uræmic coma often presents the closest resemblance to apoplexy, with a high degree of muscular resolution. It may be differentiated by attention to the temperature, which diminishes as the coma of uræmia deepens, but increases as apoplexy approaches a fatal termination. The comatose stage of the eruptive fevers and of cerebral rheumatism must be distinguished by the history of the cases, and by attention to other symptoms characteristic of such diseases.

Alcoholic intoxication may be recognized by the alcoholic odor of the breath. Certain cases of apoplexy associated with drunkenness cannot be thus speedily diagnosticated. The progress of the case will, however, soon throw light upon the question of diagnosis. There is usually less disturbance of the respiration, pulse, and temperature in ordinary intoxication than in apoplexy, and the presence of hemiplegia would be almost decisive in favor of apoplexy.

Lead-poisoning sometimes produces a condition of coma, with or without accompanying convulsions. Attention to the history of the patient, the presence of the blue line upon the gums, and, in very doubtful cases, the employment of electrical tests, will be decisive. At the same time, as Rosenthal has pointed out ("Diseases of the Nervous System," p. 408), the fact of lead-poisoning does not exclude the possibility of cerebral hemorrhage and true apoplexy.

Malarial poisoning may produce sudden coma closely resembling apoplexy. The history and residence of the patient should guide to a correct diagnosis. Malarial coma is usually preceded by other symptoms of malarial intoxication. The temperature of the body is above the normal from the commencement of the attack, while in apoplexy it is for some time depressed, and when it begins to rise it progressively increases, instead of remitting, as it does at the close of a paroxysm of malarial fever.

Opium-poisoning, with contracted pupils, livid features, perspiring skin, and utter unconsciousness, may be occasionally mistaken for apoplexy caused by hemorrhage into the pons. The normal or slightly elevated temperature, the absence of paralysis, and the retarded respiration and circulation should decide in favor of poisoning. Pontine hemorrhage also determines the appearance of sugar and albumen in the urine, which is not the case after simple opium-poisoning.

Having thus differentiated the attack from all the foregoing possibilities, it may fairly be assumed that the case is genuinely apoplectic. It then becomes necessary to determine the species to which the case belongs. Returning once more to the definition of apoplexy as "a sudden suspension of cerebral function caused by an internal lesion of the circulatory apparatus acting directly upon the brain," it is evident that the sudden seizure may originate in a number of different conditions. Hence the old classification: *apoplexia nervosa*, *apoplexia serosa*, and *apoplexia sanguinea*. The first included all cases in which there were no visible lesions of the brain-substance; the second included all cases of sudden unconsciousness with serous or dropsical effusion within the cranium; the last included all cases of vascular rupture and extravasation of blood. Serous apoplexy is usually observed as a consequence of atrophy of the cerebral convolutions, with or without Bright's disease. It is sufficiently rare to be almost wholly left out of consideration; yet its possibility should not be forgotten when the autopsy yields no other visible result. In the vast majority of cases, therefore, the probable causes of any given apoplectic seizure narrow themselves within two classes: cerebral hemorrhage caused by vascular rupture, and cerebral anæmia caused by vascular obstruction. This last may be considered almost a certainty when coincident with heart disease, right-sided hemiplegia, and aphasia. The graver forms of apoplexy, with sudden onset, or rapid aggravation of severity, must be referred to hemorrhage.

Time and space will not permit me to discuss the particular causes of cerebral hemorrhage. Be it sufficient to remind the reader of the interesting researches of Charcot and Bouchard, regarding the aneurismal processes which finally lead to rupture of the cerebral vessels. The pages of Wernicke give ample information relative to the anatomical and pathological disturbances which condition the seizure itself. Let me hasten to a consideration of the medical treatment required in the management of apoplexy.

The ancient and orthodox treatment of apoplexy is admirably set forth in the following extract from the diary of John Evelyn, describing the death of King Charles the Second:

"I went to London, hearing his Majesty had been the Monday before (2 Feb.) surpriz'd in his bed-chamber with an apoplectic fit, so that if, by God's providence, Dr. King (that excellent chirurgeon as well as physitian) had not ben accidentally present to let him blood (having his lancet in his pocket), his Majesty had certainly died that

moment, which might have ben of direful consequence, there being nobody else present with the King save this Doctor and one more, as I am assur'd. It was a mark of the extraordinary dexterity, resolution, and presence of mind in the Doctor, to let him bloud in the very paroxysm, without staying the coming of other physitians, which regularly should have ben don, and for want of which he must have a regular pardon, as they tell me. This rescu'd his Majesty for the instant, but it was only a short reprieve. He still complain'd, and was relapsing, often fainting, with sometimes epileptic symptoms, till Wednesday, for which he was cupp'd, let bloud in both jugulars, had both vomit and purges, which so reliev'd him that on Thursday hopes of recovery were signified in the publiq Gazette, but that day, about noone, the physitians thought him feaverish. This they seem'd glad of, as being more easily allay'd and methodically dealt with than his former fits; so as they prescrib'd the famous Jesuits powder: but it made him worse, and some very able Doctors who were present did not think it a fever, but the effect of his frequent bleeding and other sharp operations us'd by them about his head, so that probably the powder might stop the circulation and renew his former fits which now made him very weake. Thus he pass'd Thursday night with greate difficulty, when complaining of a paine in his side, they drew 12 ounces more of blood from him; this was by 6 in the morning on Friday, and it gave him reliefe, but it did not continue, for being now in much paine, and struggling for breath, he lay dozing, and after some conflicts, the physitians despairing of him, he gave up the ghost at halfe an houre after eleven in the morning, being 6 Feb. 1685, in the 36th yeare of his reigne, and 54th of his age."

Such were the methods which delighted our forefathers, and the tradition of their efficacy is by no means yet extinct. But in these days we rarely resort to extreme measures. No one who could recognize or suspect the presence of an embolus or a thrombus in one of the cerebral vessels would now be likely to expect their removal by any kind of sanguineous emission. In that class of cases the treatment must be of the most negative and expectant character, addressing itself to the general care of the patient, with comparatively little reference to local lesions in the brain. If any special medication is employed, it should be limited to the administration of carbonate of ammonia and chlorate of potassium—remedies designed to modify the conditions of the blood and to stimulate the action of the kidneys. Theoretically useful in cases of interrupted circulation, it is doubtful whether the final result can be appreciably modified by their use.

The treatment of serous apoplexy is in like manner to be conducted with reference to the remote causes of the disorder rather than to the state of cerebral function. The difficulty which attends the ante-mortem recognition of the forms of the so-called "simple apoplexy" must always render it impossible to formulate any specific mode of treatment. The symptoms and circumstances of each case must dictate the proper line of procedure.

Very similar must be the conduct of the physician in the presence of an intra-cranial hemorrhage. Bleeding has not yet been established as a means for the arrest of extra-cranial hemorrhage, and there is no reason to suppose that it can be any more effectual when the lacerated vessel is within the brain. The supposed relief of blood-pressure, for which bleeding has been recommended, is of so transient a character that its advantages cannot compensate for the consequent impoverishment of the fluids of the body. Physiological experiment ("Foster's Physiology," book i., chap. iv., sec. 7), shows that when an animal is bled from an open vessel the pressure in the other vascular channels sinks only during the flow of blood, and speedily recovers its normal height, unless the amount of blood removed equals at least three per cent. of the body-weight. This would necessitate bleeding to the extent of from three to six pounds in the case of an adult patient. But it is further observed, when this proportion has been reached, that great and permanent depression, frequently associated with anæmic convulsions, is suddenly developed. In the light of these experimental results the case of Charles II. forms one of the most instructive vivisections ever recorded.

It does not follow, however, that medical art is powerless during the apoplectic seizure. In congestive forms of the attack, when, probably, no vessel has actually given way, but when the vascular network of the brain is inundated with blood, when the face is flushed and the bounding pulse indicates a vigorous determination toward the head, great benefit may be expected from local depletion. The application of leeches to the anus, or behind the ears, and upon the temples, produces great reduction of the local fluxion by its effect upon the vasomotor mechanism. Ergot is theoretically useful for the same purpose, but there is no evidence to show that it is ever effectual after actual rupture has occurred. The course of the blood-current may also be largely diverted from the brain by the establishment of centres of attraction in remote quarters of the body. Hence the undoubted value of sinapisms applied to the lower extremities. Hence the happy effects sometimes witnessed after the administration of croton-oil and other active cathartics. The application of ice about the head is useful when the bodily temperature exceeds the normal figure, *i.e.*, after the attack has culminated and the period of local inflammation in the vicinity of the ruptured vessel has arrived.

It is after the period of apoplectic seizure that the intervention of the physician is most useful. If death does not close the case, the patient then enters upon a long course of more or less partial convalescence, diversified by the development of various phenomena dependent upon the local injuries sustained by the brain. Adequate consideration of the connection between these phenomena and the particular location of such injuries and alterations would lead too far into the fascinating field of investigation connected with the subject of "cerebral localization." It must suffice to recall the fact that some form of paralysis is the usual result of apoplexy. The intensity and the duration of such paralysis will depend largely upon the extent of the injury within the brain, and upon the completeness of its subsequent repair. For this reason it becomes highly important to care for the general health and nutrition of the patient. The bowels must be kept gently open; the condition of the kidneys and bladder must be duly noted; all symptoms of inflammation should be opposed as they arise. In certain serious cases it is remarked that joint-affections, analogous to those sometimes witnessed in locomotor ataxia, and bed-sores appear shortly after the attack. These are developed as a consequence of that profound shock to the nutritive process which is dependent upon grave lesions of the nervous centres and their connections with the periphery. The bed-sore is always situated upon the paralyzed side of the body, and usually upon the buttock, in this respect differing from the bed-sores of myelitis, which are placed upon the sacral region, so as to involve symmetrically the parts on either side of the median line. The skin gives way very soon after the initial seizure; a few hours—two or three days at the most, perhaps—are sufficient to demonstrate the commencement of necrosis. The soft parts are rapidly disintegrated, precisely as in cases of spinal paralysis, but the subsequent processes of gangrene, toxic infection, pyæmia, and lingering exhaustion are rarely encountered, because life is not sufficiently prolonged to admit a parallel with the tedious evolution of a spinal bed-sore. Speedy death is the almost inevitable result of these cases.

The period of convalescence after an apoplectic attack affords a favorable opportunity for the exercise of medical skill. During the return of sensibility, after the inflammatory stage has been passed, while the power of motion is returning to the lower limb, and the upper ex-

tremity is exhibiting evidence of approaching motility, the question of possible contracture becomes important. Since these late contractures are the consequence of descending degeneration of the pyramidal tract, it is necessary to observe with care the condition of that portion of the cerebro-spinal apparatus. The first symptoms of disorder are revealed from four to six weeks after the original apoplectic attack. Careful exploration of the joint-reflexes, at the elbow, wrist, knee, and ankle gives no evidence of difference between the two halves of the bodily frame so long as degeneration is restricted to the original seat of injury in the brain. But when the degenerative process invades the anterior portions of the internal capsule, and creeps down the crus cerebri, the reflexes of the paralyzed side become exaggerated. To this symptom of evil omen are soon added the evidences of a progressive deformity which gradually increase until the well-known features of "late rigidity" have been fully developed. For this unfortunate result there is little relief to be obtained from medical art. Faradization of the extensor muscles has been extensively employed for the purpose of invigorating the natural opponents of the contracting flexors of the limbs, but without any satisfactory results. In fact, as Erb remarks (von Ziemssen's "Handbuch der allgemeinen Therapie," III. Band) concerning the use of electricity after apoplectic seizures, it is impossible in any case to decide how much benefit may or may not be secured by its employment. Hence it is impossible to reproach the physician who does not subject a recent case of apoplexy to electrical treatment. During the earlier stage of recovery no form of electrical current is admissible, but after the expiration of a few weeks some advantage may be obtained from its use. Certain enthusiasts advise the application of the galvanic current through the head as soon as it is evident that the patient may recover. Others, dreading the undoubted possibility of thus exciting the cerebral circulation to a degree provocative of renewed hemorrhage, counsel a delay of at least six months. Erb wisely chooses a middle course. Scarcely before the end of the first month after apoplexy would he commence the use of electricity, and then with great caution, guided by its effects upon the apparatus of circulation. Weak galvanic currents from five or six cups may be employed about the head and neck, in order to promote absorption of the clot, and the cure of inflammatory processes in its vicinity. The faradic current may be employed upon the paralyzed muscles to prevent their enfeeblement through want of voluntary exercise. Beyond this nothing can be expected from electro-therapeutics. It is very probable that the result of treatment by massage is fully equal to the effect of electricity. But electricity possesses the advantage that it must ever remain the property of the physician, while massage is generally relegated to less intelligent hands.

Great attention should be directed to the general health of the patient. Lithæmic and rheumatic subjects should be treated with special reference to their peculiar diatheses. The hemorrhoidal diathesis deserves particular consideration, for the sudden suppression of a hemorrhoidal flux has not unfrequently been followed by an apoplectic attack. In all cases which exhibit a tendency of blood to the head the bowels should be kept freely open. The various preparations of buckthorn, cascara cordial, etc., are usually to be preferred on account of their admirable effect upon the digestive organs. But if it be desired to excite a derivative process in the pelvic region, the aloetic laxatives should be selected. The mineral waters which contain soda and magnesia, such as the Hunyadi János, Carlsbad, Rácóczy, and the stronger Saratoga waters, produce excellent effects when constipation is associated with disorder of the liver. Many chronic headaches may thus be completely cured.

The matter of diet is not a subject for indifference. A large proportion of the cases of apoplexy are associated with obesity, and are the direct result of a fatty degeneration of the vascular walls. Great accumulation of fat, moreover, produces mechanical obstruction both of the organs of circulation and of respiration. Imperfect nutrition and incomplete aëration of the tissues follow as direct consequence, leading to various forms of degeneration in different parts of the body. Apoplectic subjects, therefore, should not be suffered to use alcohol in any way, and their consumption of fats and starch should be quite moderate. The amount of food should be restricted to the absolute necessities of the patient, and its quality should accord with the standard established by physiological research. A complete dissertation upon this subject would lead me too far. Suffice it to remind the reader that the diet of a rheumatic or gouty patient should be made to differ from that of a victim of fatty degeneration or of scorbutic cachexia. All such people are liable to apoplexy, but the mode of its production would probably be different in each class.

Finally, it appears that while the efforts of the physician must be restricted within comparatively narrow limits, when he undertakes the care of an apoplectic patient his therapeutical measures must be wisely selected and decidedly energetic. They may be thus summarized:

I. *During the apoplectic attack.*—The activity of treatment should be inversely as the severity and danger of the seizure. For the worst cases nothing can be done. Milder forms are to be treated with croton-oil, leeches about the temples, behind the ears, and at the anus. When leeches cannot be procured, and in cases of simple hyperæmia, wet cups should be applied to the back of the neck and between the shoulders. General bleeding only admissible when the right side of the heart is dangerously engorged, as may be inferred from great distention of the veins about the head and neck. The bladder should be watched, and the catheter must be introduced if the urine is retained.

II. *After the attack, and during the period of inflammation or softening in the neighborhood of the cerebral lesion.*—The bowels must be kept open, preferably with mercurial and saline laxatives. Chlorate of potassium or iodide of potassium may be given to stimulate the kidneys. Tincture of aconite is an excellent agent for reduction of the pulse during the inflammatory fever. If this be insufficient to obviate cerebral hyperæmia, it should be reinforced with leeches, cups, and cathartics.

III. *Stage of convalescence and prophylaxis.*—After the subsidence of all symptoms of inflammation and hyperæmia, recourse may be had to electricity, massage, exposure to the open air, diathetic and dietetic treatment, with especial attention to general hygiene.

Somewhat Unique.—Dr. George E. Brickett sends us the following: "T. S——, of Augusta, last Saturday evening, broiled and shelled out into a bowl one peck of clams. While shaking a glass pepper-box over the bowl it dropped from his hand, striking on the edge of the bowl, breaking into several pieces, all of which he supposed fell on the table. Mr. S—— is very fond of clams, and being very hungry swallowed them whole by the big spoonful. With one large mouthful he said he felt 'something hard going down his windpipe,' but kept on and finished his peck. He felt well all day Sunday, worked on the road Monday and Tuesday. Wednesday morning after stool he felt something prick near the anus, he put his finger up and felt something hard. He said when he came to my office that he could feel either a clam-shell or a piece of pepper-box in his fundament. I examined him and removed from his rectum a round piece of glass three-fourths of an inch in diameter, with rough edges. The only inconvenience experienced in this case was in swallowing something hard and the sensation of pricking in the rectum. The glass passed from the stomach to the rectum in sixty hours, without producing the least disturbance."

THE DIFFERENTIAL DIAGNOSIS OF MALARIAL FEVERS.

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NEW YORK.

(Continued from p. 4.)

THE differential diagnosis of malarial fevers may now be more briefly concluded by reference to those forms of fever which simulate them.

First among this group stands the so-called typho-malarial fever. This much-abused term was originated, as is well known, by Dr. J. J. Woodward, of the United States Army, and has served well and faithfully for many years as a shield and refuge in the diagnosis of obscure forms of fever. What useful purpose can be claimed to offset this detrimental influence, I fail to see. The author, who is justly respected as an able and accomplished scholar and physician, does not claim that typho-malarial fever is a specific type of fever,[1] and he divides it into three groups: First, those cases in which malarial phenomena predominate, and which, even when typhoid symptoms were most pronounced, lacked the most striking characteristics of typhoid fever, and a large proportion of which terminated favorably, especially "because quinine was so freely used." In these cases "convalescence was frequently marked by regular paroxysms of ague." "The autopsies which were made showed no other lesion than intestinal catarrh."[2] Second group, in which typhoid symptoms predominate, more closely resembled typhoid, began like it, ran their course like it, refused to be cut short by quinine; after death presented characteristic lesions of Peyer's glands." Third group formed by scorbutic cases. The author has here drawn in the first group the adynamic remittent fever, to which I have referred, and which he acknowledges has been long ago described by Drake, Dickson, and many others, a purely malarial fever yielding to quinine. The depressing influences of camp life in an inhospitable region, picket duty in the presence of an active foe, and the terrible strain due to repeated skirmishes, lent this adynamic type to the remittent and intermittent fever of the Chickahominy swamps and elsewhere. Moreover, the causes of typhoid fever were also in active operation, as is testified by the enormous number of cases of this disease. This was not the assumption of the livery of abdominal typhus by malarial fever, nor vice versa, but an engrafting of the new disease upon the pre-existing intermittent or remittent. This is evident from the author's own description of the second group, which is a correct picture of enteric fever, with the occasional peculiarity of periodicity. That the term has proved unfortunate is reluctantly admitted by the author, when he says: "There has been, I admit, some indiscriminate use of the term, which is well calculated to bring it into discredit. I have myself known it to be erroneously applied to simple typhoid fever," etc. "I think I have observed also a tendency in certain quarters to bestow the term upon almost any obscure febrile affection which afforded diagnostic difficulty." A careful discrimination of the symptoms and due regard to those almost pathognomonic signs of true malarial fever will relegate these so-called typho-malarial cases to their proper position, and lead to a more satisfactory diagnosis and treatment. In the present confused state of the malaria question this is a consummation devoutly to be wished, and to be hastened by the abolition of the term "typho-malarial" from our nosology.

Typhoid fever, or enteric fever, presents in all its stages striking differences, which enable the careful observer to discriminate between this disease and malarial remittent fever. The prodrome of the latter is short; its advent is characterized by suddenness and rapidity of development; even if the latter is not the case, careful inquiry will elicit the fact that the precursory malaise bore evidences of periodicity. In typhoid fever the prodromatous stage is usually of some duration; its invasion is gradual and insidious, with languor, listlessness, indisposition to exertion, loss of vigor, mild headache, and general adynamia. These symptoms are continuous, or at least not marked by decided remission. The chill is usually absent, or feebly pronounced, being repeated at irregular intervals. Epistaxis, abdominal tenderness, and diarrhœa are frequent symptoms of incipient typhoid, but very rare in remittent fever. When the disease is fairly ushered in, there can be no doubt in the mind of the alert observer. The temperature and facial expression are readily differentiated by a superficial observer even. The former is characterized, as has been shown, by remission in the early morning hours, and rapid upward excursion to 105° and 107°, even in the earliest days in remittent fever, while in typhoid fever there is a gradual and somewhat characteristic progression, no great excursions, and the highest points are not attained until the malady has existed several days. The facial expression of remitfent fever has been described. Contrast the brilliant eye and animated countenance, restless eyes and appealing voice (for water) of this disease with the dull, apathetic, resigned face of the typhoid patient, and we have a strong point of diagnosis. In my last paper I urged a more careful imitation of the great masters of old in the study of the facies, pulse, etc., in disease, not to the exclusion of the thermometer, test-tube, etc., but in conjunction with these; and I am glad to receive recent confirmation of the necessity of this ancient method of diagnosis, in Dr. Delafield's late paper on "Typhoid Fever," read before the Academy of Medicine.[1] He says: "A study of all the temperature curves shows that we must not expect too close a correspondence with the schematic curve." In contrast with this unreliability of the temperature as a diagnostic sign, "the *appearance* of the patients was characteristic. A dull apathetic expression, the skin of the face dusky colored, the cheeks often flushed, the mind dull and sluggish—all these conditions were well marked. *In only one case were these symptoms notably absent*" (italics mine).

When typhoid fever is fairly ushered in, the pulse, temperature, spots, and nervous symptoms readily differentiate it from remittent fever. The splenic enlargement, too, occurs early in malarial, later in typhoid fever; the diarrhœa, tympanites, in fact the *tout ensemble* of the symptoms set the seal upon the diagnosis.

Idio-miasmatic fever.—Under this head I propose to define certain cases of continued fever whose origin may be traced to animal emanations, in contradistinction to the true malarial fevers, which I regard as originating from vegetable emanations under certain conditions now recognized by a majority of the profession. This type of fever has been long recognized as prevalent in crowded communities, and was in former times supposed to be the synochoid fever, a severe type of which was recognized as typhus fever until later investigations more clearly defined the specific etiology and symptoms of the latter.

When large numbers of people are congregated for long periods in badly ventilated quarters, as in prisons, barracks, ships, tenement-houses, or, as is the case with the better classes, in schools, halls, public conveyances, and theatres; when persons, occupying suits of apartments in immense hotels, flats, and so-called apartment houses, a portion of which are bereft of the light of day and of air, are subjected to emanations from water-closets and wash-basins and foul air-furnaces, which are in immediate proximity to their superheated living- and sleeping-rooms, the visible and invisible emanations from the human body are often not rapidly disposed of or diluted. There results, in consequence, a saturation of the system by the multiplying elements of these emanations, which eventuate in the development of a form of continued fever of non-specific type, which is more nearly akin to

[1] Transactions International Medical Congress, 1876, p. 333.
[2] Op. cit., p. 332.

[1] N. Y. MEDICAL RECORD, November 17, 1883.

typhus or typhoid than to malarial fever. One of the chief etiological factors of this disease is the poison arising from sewers, that prototype of the true malarial poison, which is not like the latter of telluric origin, but which is the resultant of decomposition of the excreta and secreta of the human body.

Richardson[1] says: "The disease *par excellence* derived from the sewer is that continued fever which is induced by the natural atmosphere of the sewer, by the inorganic products of organic decomposition, of which sulphuretted hydrogen plays the leading part." Gerhard has also described a fever of non-specific type, viz., neither typhus nor typhoid. "Instances of ordinary malaise and severe gastric disturbances culminating in gastric fever, or even enteric fever of the non-specific type, wanting in the characteristic affection of the glands, and not presenting the typical rose-spots—the 'fleabites without a puncture' mark of true typhoid, were adduced by William Budd in proof of the mischief that might be wrought in a household by bad sanitary arrangements."[2]

G. B. Wood[3] says: "A low fever, somewhat of the typhus character, is developed, though infinitely less dangerous than the genuine typhus. The previously debilitated condition of the patient, a depressed state of his blood, from bad living, an exposure for some time to depressing influences, as of certain epidemics, exhalation from privies, etc., may account for their adynamic character. In some instances the disease appears to assume the intermittent form."

These authorities are cited for the purpose of defending the writer from any desire to create an unnecessary addition to our nosology. The term idio-miasmatic pyrexia was introduced, as has been stated above, by Dr. Edward Miller, and was used (as I am informed by a gentleman who attended his lectures) by the late Professor Jos. Mather Smith to designate all those fevers due to effluvia emanating from the human body, in contradistinction to keino-miasmatic pyrexia, due to causes foreign or external.

As the term malaria may really be applied to all influences connected with bad air, and thus be regarded as the chief etiological factor of all contagious and infectious diseases, it is important to adopt another term for all those emanations which arise from human excreta and secreta furnished by sewers, overcrowded dwellings, schools, hotels, flats, etc. The term "malaria" is too firmly established to be now expunged. It would, therefore, be the part of prudence to avoid attacking it and the part of wisdom to establish the term "idio-miasm" to designate all those (animal) poisons, which produce those numerous cases of non-specific continued fever, which are now erroneously charged to malaria. The term miasm does not offer a sufficiently clear distinction, because it has hitherto been frequently applied to paludal emanations, and has thus become interchangeable with the term "malaria."

It would indeed be a bootless hair-splitting to enforce a distinction between malarial fever and idio-miasmatic fever, were it not that important therapeutic considerations are involved. The safety of the patient depends upon careful diagnosis of true malarial fever from that form of idio-miasmatic fever which doubtless now figures quite largely in the Board of Health Reports as "remittent fever." In the one case we have a true specific in quinine, a remedy which has no peer in our entire therapeutic armamentarium; in the other we are met by indications, totally different, which are based upon a correct appreciation of the causes of the malady and must be fulfilled by efforts to guide the disease to a favorable termination rather than to abort it.

The purpose of this paper being strictly clinical, I refrain from entering upon the discussion of the subject of the etiology of idio-miasmatic fever, and content myself with this brief reference, which is intended to be merely suggestive.

Physicians daily encounter fevers of a continued type which cannot be properly classed with typhus, typhoid, or relapsing fever, and which, though simulating malarial remittent fever, may be as readily differentiated from this as from the other forms of fever. When occurring in children it has been termed, infantile remittent; in adults, catarrhal fever, common continued fever, irritative, gastric, or mild typhoid fever, etc. The disease is ushered in by general malaise of brief duration; there is no decided chill, but often a shivering, alternating with flushes of heat. These bring the patient to bed, or induce him to drag along for a few days ere he succumbs. Appetite is quickly lost; there is not a violent thirst, but a craving for cool drinks; there is rarely vomiting, but often loathing of food; there is no severe headache, but a throbbing or constriction within and around the head. Pulse is normal in quality, but is accelerated, ninety to one hundred in mild cases. The bowels are normal, sometimes constipated; kidneys act freely, urine being high-colored and depositing urates. There are no pronounced nervous symptoms in the early stage, except sleeplessness, which is not, however, constant. If nutrition has been neglected, or patient's appetite has been further diminished by large doses of quinine or other energetic medication, if he has been depressed by inattention to his loss of sleep, the countenance assumes a dull apathetic expression, the tongue becomes dry, pulse rapid and feeble; there is tympanites without right iliac tenderness, sometimes diarrhœa; patient is listless and languid, and the whole case assumes a close imitation of typhus or typhoid fever. In severe cases this is not an unusual course. The temperature in this disease is characterized by irregularity, differing in this respect from all other fevers. In the large proportion of cases there is a range from 99.5° to 102°, rarely so high as 103°; the morning temperature is usually lower; frequently the noon or evening temperature is lowest, and these changes may occur from day to day. There is no *regular* progressive nor retrogressive daily change; the same range continuing from day to day until the disease ends by lysis. In my earlier contests with this fever I regarded it as a masked malarial type, and sought by cinchonization of the patient to catch the remission, which seemed to play hide and seek with me. But in vain; quinine is absolutely worthless; in fact, I apprehend that much damage has been inflicted by its indiscriminate administration, inasmuch as the catarrhal condition of the mucous lining of the upper alimentary tract, which characterizes this type of fever, is enhanced by it.

The tongue is covered with a white coating—there is a viscid secretion upon it; it is flabby, soft, and receives readily the impression of the teeth. There are other symptoms of gastric and duodenal catarrh in many cases; distaste for food, unpleasant taste in mouth, eructation, epigastric oppression after aliments, sense of fulness and tympanitic distention of the upper abdominal regions; in advanced or severe cases there is sometimes vomiting, with decided evidences of active gastric irritation. These symptoms would indicate that the upper alimentary tract is involved in idio-miasmatic fever, in contradistinction to true enteric fever, in which the chief evidences of pathological changes are furnished by the lower portion. Not having had opportunities for autopsies, I am unable to corroborate by pathological evidences this view, derived from the clinical features. The duration of this type of fever is from five to fifteen days; there is no critical discharge or secretion; but it terminates by lysis, according to the intensity of the impregnation, presumably, in a longer or shorter period.

From true malarial remittent this disease may be distinguished by the absence of regular morning remission or decided remission at any time; by absence of large temperature excursions, and especially of the high range attained by the former; by the absence of the insatiable

[1] Diseases of Modern Life, Bermingham ed., p. 214.
[2] London Lancet (editorial), June 10, 1882.
[3] Practice of Med., vol. i., p. 217.

thirst, intense headache, and other symptoms referred to in the delineation of remittent fever. From typhoid fever it is not so readily distinguished, especially when adynamic symptoms are marked, but in the large preponderance of cases the absence of decided adynamia, rose spots, regular temperature curves, etc., will eliminate typhoid fever from the diagnostic field. I have no doubt that many cases of idio-miasmatic fever are now reported under the head of common continued, gastric, and typhoid fever; but as malaria is the fashionable etiological factor at the present time it probably predominates largely in bearing the title of this fever.

The prognosis of idio-miasmatic fever is favorable, unless complicated by visceral troubles or attacking feeble subjects. Not unlike its prototype, malarial remittent, a recognition of its true type is of vital importance and forms an important element in the prognosis.

Many cases are complicated with bronchial trouble, others with follicular tonsillitis and pharyngitis, which, owing to adynamic symptoms are not rarely diagnosed as diphtheria.

I have seen idio-miasmatic fever in this city diagnosed as typhoid fever, but its brief duration, absence of abdominal symptoms, rose spots, etc., convinced the attendant of his error, while patient and friends congratulated themselves on having escaped in twelve days from a dreaded malady which usually lasts many weeks. In another, but sadder case this fever was diagnosed when tubercular meningitis was really impending. In conjunction with an able confrère of undoubted diagnostic acumen, I treated a boy, ten years old, who presented the characteristic symptoms of idio-miasmatic fever; five days before dissolution tubercular meningitis developed. There had been no headache, no vomiting, in fact absolutely not a single suspicious symptom of this fatal malady during two weeks of our attendance prior to the first symptom, strabismus. The case was seen by another consultant and the diagnosis was corroborated by an ophthalmoscopic examination, which I succeeded in obtaining, after several failures, on the day before his death. The optic disk was hazy, its outline œdematous; the vessels swollen and tortuous, and several roundish elevations of a light pink hue were plainly visible near the macula lutea.

Purulent accumulations within or around the viscera give rise to fever of a decidedly remittent type, which is often fatal and doubtless serves to swell the mortality statistics of malarial remittent fever. Many of these cases are obscure, but they offer typical stages of cold, pyrexia, perspiration, and remission. Few physicians of experience have not encountered such perplexing cases.

Perinephritic abscess, for instance, is not rarely free from well-marked local symptoms. The disease is almost invariably ushered in by a rigor or shivering, succeeded by febrile reaction, temperature rising to 104° or 105° and continuing until perspiration ensues, and remission often occurs during the morning hours. There are other symptoms of true malarial remittent, as jaundiced hue of skin, furred tongue, great thirst, nausea, and constipation. Remission may occur several times ere the diagnosis is rendered clear by local evidences and the inefficacy of quinine to check the paroxysms.

Hepatic abscess presents frequently another source of diagnostic error. It is a well-known fact that purulent accumulation in the liver parenchyma may occur without giving rise to pronounced local disturbance. Fever of remittent type, presenting the whole picture of rigor, heat, and sweat, recurring day after day, mark the development of hepatic abscess. This is not a disease of tropical climates only. Bartholow[1] claims that "abscess of the liver is very common in the great interior valley of North America, along the Mississippi and its tributaries."

Chaillé[2] states that it is a remarkable fact that out of one hundred and fifty post-mortems made in one year in the dissecting-rooms of the New Orleans Medical College, there were more abscesses of the liver found than were reported in the entire annual mortuary list of New Orleans. The inference is deducible, that deaths from hepatic abscess are very frequently charged to remittent fever, which disease is so closely simulated by its febrile symptoms. The same error is probably sometimes committed in New York City, which is the great centre toward which travellers from all climes gravitate in this country, and whose shipping interests furnish an enormous number of people from tropical and semi-tropical countries May not these furnish a portion of the deaths reported from remittent fever, without recourse to malaria as an etiological or lethal factor?

Relapsing fever so nearly imitates the periodic remissions and high temperatures of a true malarial remittent that it presents some difficulty of diagnosis, especially as there are often nausea, vomiting, muscular pains, hepatic and splenic enlargements. Its recurrence, however, at certain periods after entire cessation, its history and etiology, and its invulnerability by quinine, will guard against error if attention be duly aroused.

Ulcerative endocarditis and arteritis is mentioned by Murchison[1] as liable to lead to error in diagnosis. Now and then it gives rise to intermittent fever, occurring daily for weeks and months, and yet no evidences of pus can be detected in life or death. In many cases the fever is doubtless associated with formation of embolic masses in the spleen and kidneys, but in others no such cause can be discovered. The paroxysms are characterized by elevation of temperature, 103° or higher, followed by perspiration, and occasionally it is ushered in by severe chills. "You have already seen," he says, "a case of mitral disease with fever answering this description, and I attended a private patient with disease of the aortic valve, who, for three months before his death, had daily paroxysms of fever, commencing with a definite rigor, and always ending in copious perspiration, and where the friends were so satisfied that the fever was ague that they insisted on large doses of quinine."

The lectures of Murchison abound in illustrations of diseases which may be confounded with malarial fever. *Lymphadenoma*, *syphilitic fever*, and *hepatic fever* are referred to in this connection. The latter is due to gall-stones which block the bile-duct, and is characterized by regular intermittent fever. Some patients have twenty or thirty attacks, which are often postponed, but not prevented by quinine.

Acute tuberculosis sometimes presents symptoms which, owing to the regularity of the morning remission and afternoon exacerbation, may mislead the diagnostician. Errors of this kind would seem to me improbable, but Murchison says that he has repeatedly been consulted in cases of this kind on the supposition that the patient was suffering from enteric or malarial fever, and where on the one hand the persistence of the fever over a month, and on the other the failure of quinine to check the paroxysm, had thrown doubt on the original diagnosis and led to consultation. The paroxysms of fever occur chiefly toward night, temperature rising to 102°, 103°, or higher, followed by night-sweats. Rigors are rare. In the morning and during the greater part of the day the temperature may be normal. After a time the real nature of the trouble is revealed by local signs in the apex of one lung, or supervention of symptoms of chronic peritonitis or acute meningitis.

In my personal experience there has been little difficulty in distinguishing acute tuberculosis from malarial fever, inasmuch as the short pyrexia followed by prolonged and exhaustive perspiration of the former differ strikingly from the course of the latter, and these symptoms usually occur in the more advanced stages, when local evidences are not wanting to render the diagnosis

[1] Op. cit., p. 152.

[2] New Orleans Med. Journal, xxiii., p. 45.

[1] London Lancet, 1879, i., 619.

perfectly clear. The diagnosis of the early stages of acute tuberculosis from typhoid or idio-miasmatic fever is more difficult, because the latter is characterized by a more continuous type of fever, not succeeded by perspiration. The case of tubercular meningitis, cited above, when discussing the diagnosis of idio-miasmatic fever, illustrates this difficulty.

158 West Fifty-fourth Street.

PUERPERAL SEPTICÆMIA AND CONSTANT IRRIGATION OF UTERUS.

By TALBOT JONES, M.D.,

ST. PAUL, MINN.

The interesting and highly important paper on puerperal septicæmia read by Dr. T. Gaillard Thomas before the Academy of Medicine on December 6, 1883, which was published in the last Record deserves and will command the thoughtful attention of all progressive physicians, both on account of its distinguished author, and the inherent importance of the subject itself.

The frequency of puerperal septicæmia, its gravity, the anxiety it always occasions the conscientious accoucheur, and the great divergence of opinion held regarding its pathology and treatment, invests the subject with a peculiar and painful interest to the general practitioneur, and the timely contribution of Dr. Thomas will doubtless command a wide hearing. The interest his paper awakened is shown in the debate that followed, which, upon motion of the president, was adjourned to the first meeting in February. We cannot anticipate the views that will then be expressed, though the debate will likely prove a memorable one.

In view of this approaching discussion the time is ripe, and the professional mind will be prepared for a report of clinical cases; for after all clinical observation is a vehm-gericht from whose sentences there is no appeal. I therefore venture to report three cases of puerperal septicæmia treated by constant irrigation of the uterus, notwithstanding it is a method which Dr. Thomas terms a "delusion and a snare."

It was resorted to only after a faithful though unsuccessful trial by intermittent intra-uterine injections, which depressed the temperature for a time only, and not permanently. Dr. Thomas, in his condemnation of constant irrigation of the puerperal uterus, leaves us in doubt whether this opinion is based upon a sad personal experience, or is rather a method of inferential reasoning which would lead him to declare with Cruveilhier "that even success does not always justify rash enterprises."

Be this as it may, I feel firmly convinced that my patients' lives were saved by the treatment that Dr. Thomas condemns, and would have been lost by the plan he approves, for in each case the irrigation was tried only as a last resort, and after intra-uterine injections had failed to accomplish the object sought. This paper is not to advocate constant irrigation of the puerperal womb, but merely to report three clinical cases, and is written rather as an appeal to the profession to place on record their clinical experience, to report their successes and failures alike, when some one in the future may be enabled out of the sum of the knowledge thus obtained, to formulate the proper treatment to be pursued in those morbid processes embraced under the generic term of puerperal fever.

Though not sanctioned by Dr. Thomas, this treatment, in appropriate cases, has a large following and undoubted acceptance in Germany and Italy, and according to published statistics its success has been conspicuous enough, especially in the Turin school, according to Dr. Fasola, *Annulia di Obtetricia*. My cases are as follows:

Case I.—Mrs. M——, aged thirty-six, German, in the middle walks of life, living under fairly good surroundings, the mother of three children, the oldest being fourteen, was delivered of a healthy girl after a moderately severe labor. The uterus contracted well, though there was considerable after-pain. Thirty-six hours subsequent to delivery she had a severe chill, suppression of the lochia, headache, vomiting, and pain. Temperature, 102½° F.; which gradually rose to 104° F., on the third day; pulse, 120. The lower abdomen became tympanitic and extremely tender to the touch, even the weight of the bedclothes causing severe pain. An examination showed no laceration of the cervix or abrasions of the vagina. Feeling sure that this complexus of symptoms was due to the decomposition of placental débris a Sims speculum was introduced and with a curette a bit of disintegrated placental tissue the size of a filbert was removed. Intra-uterine injections of a three per cent. solution of warm carbolic acid were employed every three hours; the pain relieved by half-grain morphia suppositories and twenty-grain doses of quinia given according to circumstances, and hot flax-seed poultices applied over the abdomen. Later along all the symptoms increased in severity; the temperature rose to 105¾°, the pulse to 140 and was weak and thready; a mild delirium supervened, her face wore a pinched expression, and the whole body was bathed in a profuse perspiration. At this juncture, when her life was well-nigh despaired of, constant irrigation of the uterus was decided upon. A Knott's double-current catheter was attached to a fountain syringe having a stop-cock, which regulated the flow of the liquid. Her hips were elevated and placed on a partially inflated rubber pillow. A rubber cloth was now drawn under her, and through the cloth and the mattress of the bed a hole was made to permit the return fluid from the uterus to be received into a vessel under the bed. The fountain syringe could be raised or lowered on the wall, and by this means the force of the stream entering the uterus regulated. The finger introduced up to the ring of Bandl served as a guide to the catheter, which was passed well up to the fundus. The fluid used was a three per cent. solution of carbolic acid at a temperature of 100° F. The syringe was elevated, the stop-cock turned slightly at first, and the interior of the womb irrigated. The operation was watched narrowly, though no untoward complication arose. In twelve hours the patient's temperature was depressed to 103°, and twenty-four hours later to 101⅞°, above which point it never subsequently rose.

Case II.—A primipara, aged twenty-two, in comfortable circumstances, was seized on the third day after a severe instrumental labor with a chill, and three hours after her temperature registered 104½, pulse, 135. The disease pursued much the same course as in the preceding case, though scarcely so severe, hence it will be unnecessary to repeat the symptoms. Internal medication was the same as that employed in the first case. This patient's temperature was depressed by intra-uterine injections to the extent of 2°, 2½°, and once as much as 3° F., but invariably rose to the original fever point in the course of one hour after the injection. The failure to keep her temperature permanently within bounds induced me to again resort to constant irrigation, which was continued for sixty hours, when the thermometer registered 101°. She made a good recovery.

Case III. was a French woman, a multipara, residing on the flats of West St. Paul, under bad hygienic surroundings. I was called to attend her for a threatened miscarriage at the sixth month. She could assign no cause for this; had received no fall or strain, and stoutly denied all criminality. She said she had felt no "life" for some time. This, together with the fact that she experienced chilliness, languor, a bad taste in the mouth, and a weight as from a foreign body, suggested that the child was dead—an opinion that was strengthened when after a careful auscultation no fœtal heart-sounds could be heard, and through the open cervix the frontal bones were found loose and movable within the integument. Ergot was given, which produced strong, though not sufficiently powerful pains to enable the uterus to empty itself, and the fœtus had to be extracted by the hand

twenty-four hours later, and was found dead and decomposed. The discharges from the uterus were extremely offensive, having a carrion-like odor. Her temperature, which was 102° before delivery, after it rose rapidly, and a maximum of 106° was touched in twenty-four hours. Intra-uterine injections of warm carbolized water were employed every three hours, and in addition, three injections a day were made to the interior of the organ, of iodoform and glycerine, 1 to 15. Her temperature was always temporarily depressed by each injection, but again rose to the original point in an hour after each operation. The internal treatment by drugs was the same as that employed in the first cases. The patient soon passed into a state of imminent peril, with high fever (106°), mild delirium, and a feeble and rapid pulse, denoting heart-failure. Constant irrigation was again resorted to, and though the fever defervescence was not marked for the first six hours, subsequently the decline in temperature was slow, but progressive, until 102¾° was touched, when the patient's appearance denoted a marked improvement. She made a slow but comparatively good recovery, with some sub-involution of the uterus.

These cases are reported for what they may be worth, and physicians may draw their own deductions as to the value of the method employed, or whether or not the cases justified the treatment. Being but three in number they will, of course, not modify present views concerning treatment. But I trust my reporting them may stimulate other observers to place on record, and if possible before the forthcoming debate, their own experience with uterine irrigation—a method of cure that at the present time is attracting so much attention abroad.

Dr. F. A. Dunsmoor reported to the Minnesota State Medical Society, 1883, a case of death occurring during irrigation. The patient, after a normal labor, had a chill on the second day, a rise in temperature to 104°, and the usual symptoms of septicæmia. On the third morning, when the irrigation was progressing, the patient remarked, "I hear such strange noises in my head," and immediately expired. How he performed the irrigation is not stated. He thinks death occurred as the result of an embolus, or else to the solution entering an open sinus. In my own cases at no time did symptoms arise denoting carbolic acid poisoning. The dangers from irrigating the puerperal uterus are stated to be rigors, shock, entrance of air into the open uterine sinuses, or of the liquid into the peritoneal cavity, dislodgment of a blood clot, etc.; but in my cases none of these complications were observed.

DECEMBER 23, 1883.

SALICYLIC ACID AS AN APPLICATION TO EPITHELIOMATOUS GROWTHS.—Recently at St. Bartholomew's Hospital (*British Medical Journal*), during a consultation on a case of rapidly growing epitheliomatous vegetations springing from the floor of a rodent ulcer, Mr. Thomas Smith advised Mr. Howard Marsh, under whose care the patient was, to use a saturated solution of salicylic acid as a local application. Mr. Smith said that, some time ago, he had been induced to make use of this remedy in the treatment of simple papillomata, and the result had been so favorable that he was led to apply it to epitheliomatous cases also. In the first case, which had now been under observation for some time, the application was entirely successful, the epitheliomatous growth having been entirely destroyed in two or three weeks. It is said that Dr. Thin has also had favorable experience of the remedy.

A NEW TREATMENT FOR SLEEPLESSNESS.—Dr. J. Mortimer Granville recommends his percuteur as a remedy for insomnia and says that it rarely fails. He applies it along the dorsal spine, or, if this fails, over the left zygoma near the root of the transverse process. Fine delicate vibrations are employed for five or ten minutes.—*British Medical Journal.*

AN INTERESTING HISTORY OF INFECTION OF A FAMILY BY AN INFANT HEREDITARILY SYPHILITIC.

BY G. FRANK LYDSTON, M.D.,

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A SHORT time since I was consulted by a gentleman in regard to the cases of his wife and eldest daughter, who it appeared upon investigation had been suffering from various manifestations of syphilis for the last four years, having been under various systems of treatment at different periods during that time. He himself had also suffered from mild symptoms of the same disease, but at the time of his consulting me he expressed himself as cured. The history of contagion elicited in these cases, and verified by the physician who had been the family attendant, was so interesting that I have thought it worthy of publication. In 1877 one of this gentleman's daughters was married to a dissolute fellow, whose views regarding his marital obligations were of a very lax nature, and who, shortly after marriage, and in the sixth month of his wife's pregnancy, contracted syphilitic chancre. During the course of a few weeks—probably during the seventh month of utero-gestation, reckoning from the average incubative period of syphilis—his wife developed primary syphilis. At term, an apparently healthy living child was born, and the mother developed in a few weeks active secondary syphilis, which subsequently ran the usual course, more or less modified by treatment. This first child remained entirely free from any signs indicative of syphilis, and was to all appearances more than usually robust until two years of age, when, unfortunately for this history, it died of capillary bronchitis. The mother became pregnant seven months after the birth of the first child, and at the eighth month, just fifteen months after the previous labor, she was delivered of a second child that was unmistakably syphilitic, characteristic lesions appearing in the second week after delivery. This child lived only three weeks, but during this short time was cared for and caressed constantly by the grandmother and eldest daughter. In less than a month, labial chancre developed in both ladies, secondary symptoms following in due course. The grandfather was next infected by his wife. (I will state, in explanation of the entire absence of precautionary measures, that the labor was attended by a midwife, no physician being consulted until all were infected. The grandfather became infected, as he acknowledged, through disregard of the advice of his physician.) There have been several healthy children born since the birth of the syphilitic child, the mother being under active treatment at the time. She is at present out of the city and it is therefore impossible to state her present condition, but when last heard from she was free from symptoms of the disease. The mother and sister have had more or less marked manifestations of the disease ever since its contraction, and are at present afflicted with mild tertiary manifestations.

There are some points in this history worthy of comment. In the first place it will be noticed that the first child was apparently healthy. This accords with Diday's conclusion that when the mother is infected after the seventh month of utero-gestation the child escapes the disease. This point is a strong one in favor of the physiological pathology of syphilis as taught by Besiadecki, Baümler, Otis, and others, who claim that the disease is practically primarily local, and that consequently the child cannot become diseased until the system of the mother has been secondarily infected, and the syphilitic cells carried to the fœtus by the maternal circulation. If such is the case it would appear strange that the child did not contract the disease from the mother after full secondary symptoms developed.

This evidently might be explained in several ways. In the first place, the excellent health of the child up to

its death at two years is not conclusive proof that it was not syphilitic, although it is usual for some manifestation of the disease to appear in the first few weeks or months. Late manifestations of hereditary syphilis are not unfamiliar.[1]

Hutchinson first advanced the idea that the law of Abram Colles, viz., "that the hereditarily syphilitic infant cannot infect its mother," and *vice versa*, depends upon an impression made by the disease upon either the maternal or fœtal organism analogous to vaccination. Thus in case the mother be infected, the disease may expend its violence upon her and the child escape positive evidences of syphilis although protected from the disease in the future. The reverse might also hold true in case of infection of the child by the father direct, through the medium of the semen. The possibility of this is, as is well known, denied by many, and the question is certainly a difficult one to determine positively, inasmuch as syphilis in the female so frequently manifests itself by symptoms so slight as to be unnoticeable, and in many cases the mother of a child hereditarily syphilitic is undoubtedly the medium of infection, although she has never observed any symptoms of disease in herself and may never exhibit them subsequently, even when under close surveillance. In such cases the father of the child may not receive the benefit of the doubt. There is no doubt in our own mind, however, as to the direct transmission of at least a faulty organization, or some condition of malnutrition (scrofula?) from a syphilitic father to his offspring in many instances, and indeed far oftener than we are led to suppose. Hutchinson's almost routine practice of prescribing mercurials for struma, may have had a better pathological basis than he himself realized. Certainly the results of iodine in struma are very suggestive. Assuming that the views of the authorities quoted as advocating the primarily local nature of syphilis to be correct, and that the first child was really perfectly healthy, its non-infection after birth may be explained aside from the law of Colles by the fact that there may have been at no time a coexistence of abrasion of the mucous membrane of the child's mouth and abrasion of the mother's nipples. Infection through the medium of the milk has, of course, been shown to be impossible by such investigators as Bassereau, Diday, Rollet, and Clerc.

125 State Street.

Progress in Cremation.—Cable reports from Portugal state that it has been decreed that, in all the municipalities, the cemeteries shall be emptied each five years, and the bodies be publicly cremated.

M. Brouardel, in a report on cremation to the Paris Council of National Health, states that he considers cremation to be opposed to the interests of justice. Crime would rest undetected, and the wrongly accused could not be exonerated. During epidemics, the danger to public health would be increased rather than lessened by the practice of cremation, inasmuch as the different processes require longer personal contact than does simple burial. The Council has adopted M. Brouardel's views and voted against cremation. M. Köchlin-Schwartz, president of the Society of Cremation, has addressed to the prefect of police the following objections to M. Brouardel's statements: "After cremation, traces of mineral poison are detected in the ashes, and these are always preserved. Vegetable poisons would escape detection; but equally so after inhumation, when the body would be decomposed. In cases of cremation, personal contact is not more prolonged than in ordinary burial. The chief difference lies in the fact that in one hour the body is destroyed by fire, instead of undergoing slow decomposition, and giving off pestilential miasmata to poison the neighboring population."

[1] Vide Fournier. "Lectures on Late Hereditary Syphilis.

Progress of Medical Science.

Deafness Caused by Pressure on the Ears.—Narrowing of the external auditory canal from cracks in the cartilaginous portion is a recognized cause of deafness, apart from the liability to which it gives rise of the retention and accumulation of cerumen. Dr. Moure has seen this narrowing caused by the pressure of a handkerchief worn over the head and tied closely under the chin, which forms the head-dress worn by the peasant women in some districts. Deafness produced in the same way is not uncommon in nuns who wear the *cornette* pressing tightly against the pavilion of the ear. The treatment of this condition consists in gradual dilatation by means of laminaria tents.—*Lyon Médical*, October 21, 1883.

How Intestinal Tuberculosis is Caused by Swallowing Sputa.—Dr. Mosler, of Greifswald, communicates a paper to the *Deutsche Med. Wochenschrift* on the infection of the intestinal mucous membrane from the swallowing of tuberculous sputa. In one case, which he treated in hospital, the patient, who was rather stupid, could not be persuaded into ejecting the sputum, but invariably swallowed it, in quantities which other symptoms showed to have been very great. Ten days after his first attack of cough with expectoration, diarrhœa and severe colic came on, which was relieved by opiates and other appropriate remedies, but which, nevertheless, went on until death occurred in eight days. Distinct signs of tubercle were found in the lungs, but nowhere else in their immediate neighborhood, and in no other part of the body except abundantly in the intestines, especially the jejunum. Mosler attributes the presence of tubercle in the intestines in all cases more to the swallowing of the sputa than to a general infection. He has not as yet succeeded in producing tuberculosis of the intestines in animals by feeding them on tuberculous sputa and pieces of solid tubercle, but in one case it caused considerable inflammation of the stomach and small intestine. A tonic prophylactic treatment, in the direction of the bowels, is indicated, as tubercle chooses the weakest organ for its development. The case cited had gone through an attack of typhoid fever some little time before, which might have predisposed to the infection.

Nervous Disturbances from Indigestion.—Professor Henoch, of Berlin, relates, in the *Wien. Med. Blätter*, some cases which occurred in his practice, in which various psychical and nervous symptoms resulted from indigestion. One little girl, three years of age, became aphasic suddenly, and when seen an hour afterward was not able to utter a word, except a cry on being pinched. Speech returned soon afterward, immediately on the child vomiting a cherry which had been swallowed without being chewed. One or two other similar cases, which he describes, have occurred; and the pulse is generally somewhat retarded, but is never irregular, as it is in commencing meningitis, for which this condition might be mistaken. In one case paralytic symptoms followed the disappearance of the psychical. An emetic seems to be the remedy indicated, as improvement always followed the emptying of the stomach.

Influence of the Pavement in Workshops in Causing Disease of the Legs in the Workmen.—Dr. Köchlin-Schwartz notes the existence, among certain workmen on the ground-floors of factories, of a distressing though not painful œdema of the legs, which seems to be dependent in no way upon gout or rheumatism. The disease has only existed since the wooden flooring formerly in use was removed, although now the workmen have shorter hours and live under vastly superior hygienic conditions. The workmen themselves attribute this swelling of the feet and legs to the nature of the pavement. They

dread especially asphalt, then cement, next comes stone flagging, and finally bricks, which they prefer to any of the others. It does not seem to be a simple question of standing upon a cold floor, since the brick pavements are as cold as the cement or the asphalt. If there be really any relation here of cause and effect the evident lesson would be that wooden floors should always be preferred to the more modern style of pavement.—*Lyon Médical*, October 28, 1883.

Calcification of the Pleura.—Dr. A. Gilbert relates the case of a man, sixty-six years of age, who died from gastro-hepatic carcinoma and pulmonary phthisis. At the autopsy, in addition to the visceral and pulmonary lesions, there was seen to be a calcification of the right costal pleura. The membrane was involved to a considerable extent, forming a patch about eight inches in length by five inches in width. The outer surface of the patch was separated from the ribs by a dense layer of connective tissue. Its inner surface was very irregular, seamed with cracks, studded with little conoidal knobs, and closely attached to the pulmonary pleura by a number of old fibrous adhesions. It gradually increased in thickness from before backward, being at the sternum scarcely one-fifth of an inch in thickness, but more than three-fifths at the spine. There were two layers, the central one whitish, resembling bone, the cortical one yellowish, looking like horn. This latter was formed of extremely dense connective tissue, the former of connective tissue and calcareous matter. But though to the naked eye it resembled bone, the histological examination showed the absence of anything resembling osseous structure.—*Le Progrès Médical*, October 27, 1883.

The Etiology of Inflammation of the Joints.—Professor M. Schüller asserts that the former views of the origin of joint inflammation from external causes are erroneous, that there can be no inflammation without the presence of the excitants of inflammation. The latter may be inorganic (chemical), or organic (micro-organisms). These excitants may reach the joint in either of three ways: directly through an open wound, from the blood, or from the periarticular tissues. It was formerly thought that every joint-wound must of necessity lead to inflammation and suppuration, but now experience teaches the contrary when antiseptic measures are employed. The belief that traumatism, without opening of the joint, is of itself alone a cause of arthritis, the author regards as likewise erroneous. He contused the joints of healthy animals without seeing any inflammation follow. After such injuries he found effusions of blood, and sometimes very small collections of round cells in the subsynovial fatty tissue, but nothing else. When, however, any infectious matters were injected into the body at a distance from the joints, there was almost invariably an inflammation of the joint, originating from the point at which the sanguineous effusion took place. The infecting material found entrance into the joint from the blood. In an analogous way arise inflammations of the joints without the intervention of traumatism, as in gonorrhœa, rheumatism, metastatic arthritis, etc., where the poison exists previously in the blood. The poison is usually organic in its nature, but may be purely chemical, as in gout. The third mode of origin, where the poison is transmitted directly from the neighboring tissues, is seen in many syphilitic and tubercular joint diseases, after acute osteomyelitis, erysipelas, etc. The joint infection may occur here in either of three ways: by the direct emptying of a neighboring collection of morbid material into the joint, as may happen in syphilis, tuberculosis, or infectious osteomyelitis; by a gradual extension of the disease from the surrounding tissues, as occurs more frequently in syphilis and tuberculosis; or by the rapid transplantation of morbid materials through the lymph channels.—*Schmidt's Jahrbücher*, October 17, 1883.

Cure of Blepharospasmus by Massage.—A woman, forty-five years of age, had suffered for ten years from clonic spasm of the left eyelid. As she would not consent to neurotomy, Dr. Abadie determined to attempt a cure by massage. After smearing the parts with vaseline, strong friction was made with the thumb over the orbicularis muscle, so as to press the skin and underlying tissues in an outward direction. The first sitting lasted six or seven minutes, the second ten minutes. The procedure was repeated daily for three weeks, when the affection was cured. A second case, of a year's standing, was cured in two weeks; but in a third case, of intermittent spasm of both lids, the treatment was unsuccessful. The author thinks that this procedure may be of value in cases of nocturnal spasm of the lids—meaning by this term to express a condition from which many persons suffer, who, on awaking in the night or in the morning, are at first unable to open the eyes, being obliged to separate the lids with some force by the fingers.—*Schmidt's Jahrbücher*, October 17, 1883.

Treatment of Ulcers by the Subcarbonate of Iron.—Dr. Maison regards subcarbonate of iron as the best remedy for the local treatment of ulcers of various kinds, even those of syphilitic origin. The mode of application is as follows: The surface of the ulcer is first washed with carbolized water and then dusted thickly with powdered subcarbonate of iron, and over this is put a starch poultice. The dressing is usually changed twice a day. The healing process is very rapid, and has even taken place in ulcers which were rebellious to treatment by iodoform.—*Moniteur de la Policlinique*, November 4, 1883.

The Proposed New Medical Law.—A correspondent from the interior of the State sends us a criticism of the proposed new medical law and suggests a substitute. He says: "The question is, Will the bill sent out by the Erie County Society, bring about the desired reformation? In my humble opinion, most decidedly, no! Why! see the amount of money that will arise from the assessment upon the whole number of candidates for a license! *forty* dollars per poll! making a grand total of nearly or quite *forty thousand* dollars. This amount to be divided among *nine* men, who would probably devote about ten or twelve days to the work of examining such candidates; a lucrative office for the length of time necessarily occupied in examining the afore-mentioned candidates."

Our correspondent's criticism is founded upon a misapprehension. There are not one thousand new doctors annually in the State; the number is more nearly one hundred. He suggests, in place of the present law, one which will compel the colleges to give a four years' graded course. This means that the State practically take charge of the colleges. We have not arrived at the stage when that can be done, even if it were desirable. The proposed law makes provisions for having only well-qualified and educated medical men admitted to practice in the State. Justice and public health demand this, and we cannot ask much more.

The Action of Napelline in a Case of Facial Neuralgia.—Dr. Grognot, of Milly, relates the history of a patient, a young unmarried woman, who was in perfect health except for a severe form of neuralgia affecting the first and second branches of the trigeminus. The pain was worse at about the menstrual period, although this function was performed normally. The pain was worse on the right side, and there were painful points. She had taken various drugs, including "aconitine cristillisée," but without relief. Grognot prescribed napelline, in pills of one-tenth of a milligramme every two hours. The relief was very rapid and permanent.—*Bulletin General de Therapeutique*, September 15, 1883, p. 221.

THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., EDITOR.

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THE SIMS' MEMORIAL FUND.

IN another column will be found an appeal to the medical profession of the world for a memorial tribute to the late Dr. J. Marion Sims.

We doubt not that the sentiments which actuate the movement will be warmly appreciated by his many friends and admirers. Few men were privileged to do, even during a busy lifetime, as much for alleviating the sufferings of womankind as Sims.

Endowed with an original mind, with a genius for invention, with a rare skill in operative procedure, he justly earned for himself the proud name of the Father of Scientific American Gynecology. Almost every advance made in his chosen field of research bears the impress of his master-mind. From the time he first demonstrated the possibility of curing vesico-vaginal fistula by his original method, his irrepressible fertility of resource marched steadily from conquering unto conquests, until his fame as an investigator, and his skill as an operator, were spread throughout civilized Christendom. But his good deeds, his work so well done, his grand reputation so honestly earned, are now matters of history.

To perpetuate his memory in some more substantial way than by mere eulogy, is a privilege which will doubtless be becomingly appreciated by all who have been benefited directly or indirectly by his teachings and practice. The way is now open for the response. Any one inclined to do so is invited to contribute, and due acknowledgment of the amounts subscribed, and the name of the subscriber will be regularly credited in our columns from week to week, beginning with our next issue.

We also propose to publish, in the first number of each month, the full list of subscribers and their subscriptions, duly supervised by the Central Committee.

As stated in the circular of the committee, all contributions should be addressed

THE MEDICAL RECORD,
NEW YORK,
N. Y.

Checks should be drawn to the order of THE MEDICAL RECORD, which will cheerfully take upon itself the responsibilities of treasurer of the fund. The members of the General Committee will be increased from time to time, and such as have already consented to act in their respective districts are cordially invited to do so in such way as may best secure the end in view. In this manner it is to be hoped that the work may be properly systematized, and that the best directed efforts of the friends of Dr. Sims will find a hopeful realization.

The various medical societies throughout the world, to many of which the beloved Sims was either an active or honorary member, will also gladly aid the movement, which we believe is now auspiciously commenced under the guidance of the Committee.

Aside from honoring a medical brother, the profession can understand that by raising a monument to Sims, or contributing to an otherwise suitable memorial to him, they help to establish the principle that great deeds in medicine merit public recognition alongside of those in literature, art, and war. That to save human life, to devise new methods of alleviating suffering, to faithfully minister to the demands of a common humanity, involve wider aims and loftier purposes than those which thrill the poet, inspire the musician, encourage the artist, or stimulate the soldier.

SIR ANDREW CLARK ON CATHETER FEVER.

THE discussion aroused in London medical circles a few weeks ago by Sir Andrew Clark's remarks on catheter fever, has led to a renewed study of the subject. At a meeting of the London Medical Society recently, Dr. Clark presented his views again in a more elaborate form, and claimed that he had discovered or formulated a new group of symptoms which deserved the attention of the profession. Whether his claim is just or not, it certainly aroused an active and profitable discussion, in which gentlemen of such experience as Sir Henry Thompson, Mr. Savory, Mr. Reginald Harrison, and others, took part. We think that our readers will be interested in hearing again, therefore, about this hypothetical new disease.

It is very well known that there sometimes occurs after passing a catheter a number of morbid symptoms. There may be simply a "physiological rigor," *i.e.*, a chill without fever; or there may be a "pathological rigor," *i.e.*, a chill with fever, a condition which Sir Henry Thompson calls an "acute transient attack of urethral fever." Then again, there may occur a number of febrile attacks, perhaps four or five, the patient finally recovering.

Fourthly and finally, there may occur a set of symptoms of a more serious character, which has been designated as "continuous urinary or urethral fever." Here the patients are generally older, and have had some urinary obstruction for a considerable time. The bladder is usually hypertrophied, and there is probably some chronic interstitial nephritis. The fever is of a "low" type, with considerable constitutional disturbance, but no marked rise in temperature. The patient not unfrequently dies.

Now, to the above varieties of post-catheterization disturbances, Dr. Clark proposes to add a fifth. We prefer to present the description of it in his own words, where he sums up his views:

"First, about middle life in men perfectly healthy, or with no discoverable evidence of disease, except, perhaps, and even then not always, a low density of urine, the commencement of the habitual use of the catheter is

sometimes followed by fever of the remittent type, which often ends in death; and, for the fatal issue in such cases, no adequate structural explanation can be found.

"Secondly, it is important that such a fever, arising in the midst of apparent health from such a seemingly small cause, and leading so often (as it certainly does) to a fatal issue, should be well and widely known, lest death should take the friends of the patient by surprise, and arrangements necessary to the welfare of a family should be left unmade.

"Thirdly, although it is well known that in persons affected with renal disease, or in chronic gout, or with grave disorders of the general health, the commencement of habitual catheterism is attended with peril to life from secondary fever, the fact that this fever may arise in what seems to be good health, and, without the mediation of any visible structural lesion, issue in death, is not well known, or at least well known only to a few, and has, I repeat, no adequate place in English surgical literature, or in the English surgical teaching of this time. Of course this knowledge will be found, as I have in a very imperfect way shown you, in special monographs and papers; but those are the luxuries of the few, and, for the most part, the luxuries of specialists who work in that direction; but such knowledge should be, as I think, fully imported into all common text-books, and so made accessible to the whole body of the profession.

"Fourthly, this fever is neither distinctly uræmic nor distinctly pyæmic; although having some of the characters of each, it has all the necessary characters of neither. Probably it begins in the nervous system. Probably the disturbance of the nervous system reacts, in the first instance, upon the general metabolism of the body, and, in the second instance, upon the secretory organs, beginning with the kidney. The effect upon the kidney may consist either in structural alterations of the kidney, invisible by the aid of our finest instruments of research, or, as seems to me much more probable, in alteration of the constitution of the blood, the dynamic condition of its constituents in the renal vessels essential to the elaborative action of the secretory cells thereof; and, lastly, the concurrence of these conditions may, and often is, enforced by septic re-absorption into the blood.

"Fifthly, a more complete knowledge of this variety of fever and of the conditions of its origin, maintenance, and increase, may, at least we may hope, lead to a material diminution of its mortality; and, even now, by treating in a serious manner entrance upon catheter-life, by taking the precautions set forth by Sir Henry Thompson, by great temperance in the use of foods and stimulants, by rest, warmth, and by other general means upon which I shall not dwell, such mortality, I repeat, may be possibly considerably diminished."

The general opinion, as expressed by Dr. Clark's critics, and the one which any careful observer would adopt, is that the existence of this new form of catheter fever, coming on in previously healthy men, is "not proven." The cases related are confessedly few, and post-mortem was obtained in only one instance.

We are taught, however, that caution is necessary in initiating patients with urethral obstruction into the catheter-life, even though they have been, and apparently still are, in good general health.

MEDICAL PRACTICE IN NEW YORK.

A DISAPPOINTED physician of this city, who calls himself an ex-specialist, has been discoursing to a writer on the *Tribune* staff, and has taken the trouble to malign his profession in that paper to the best of his ability. He begins by saying that the condition of medical practice in New York "has been greatly injured by concessions about medical etiquette that involve a sacrifice of principle and seem to show that the money of the patient is the chief object in practice." "Systems of medicine different in root and branch cannot," says this astute individual "be brought together, except on the ground that one or both are humbugs."

Now the true state of the case is that nowhere is there less, comparatively speaking, of the humbug known as homœopathy than in New York City. Indeed New York is the only large city in the country which has no professedly homœopathic medical journal, while the leading medical society of quondam homœopaths has renounced entirely Hahnemannism and dogmatic medicine.

We will not open up the subject of the "concessions about medical etiquette," but will simply say that these so-called "concessions" have been in the interest of a higher morality, and have had for their object the inculcation of greater individual honesty. We trust and believe that the physicians of New York City feel more earnestly than ever the obligations imposed upon them as educated and responsible gentlemen. If there occurs a moral decline, it will be because certain medical cliques unite to fill the city with imperfectly educated doctors who find that they must live.

Our misanthropic ex-specialist continues as follows: "'Again, the tendency in New York is for everybody to set up as a specialist. One man takes hold of skin diseases, another of nose diseases, a third of the ears, a fourth of the spine, and they call themselves specialists in many cases when they are nothing of the kind, and are not as well posted as an ordinary country family doctor who attends to everything. The object of the specialty distinction is to charge excessive figures to unwary patients. You understand it,' continued the doctor, 'when you know that if anything happens to you out of the common your friends are immediately telling you to go to this or that specialist. If you have a little twinge of the gout, yonder is somebody who makes it a grave matter that he attends only to rheumatism and gout. In short,' said the doctor, 'there are too many men in the profession, and too many of those are looking for something to raise the wind. Indeed, I regard this specialty dodge as sometimes hardly up to the level of patent medicine dignity.'"

We have often taken the opportunity to criticise the evils of specialism, and we are not prepared to deny that there is a tendency for too many to take up some particular branch of medicine, though no more in New York than in some other cities. But we have never heard that this tendency extended to "everybody in New York." On the contrary, the gentlemen who are at all known in this city as "specialists" do not amount to five per cent. of the total number. Our very fine-spirited ex-specialist forgets that a doctor has to work many years before he can succeed as a specialist; that, taking it all together, it is the general practitioner

who makes the most money; and that the young man who takes up some specialty and thinks he can at once charge high fees for his services soon finds his mistake. In fine the "specialty dodge," as our highly ethical ex-specialist insultingly terms it, is not a money-making dodge at all—unless the individual becomes an out-and-out quack.

It is unfortunate that gentlemen who find that things do not go in the medical world just as they wish should at once conclude that we are all going to the bad. But it is worse than unfortunate, it is unpardonable and indecent that such persons should resort to the daily papers in order to proclaim their grievances and defame their profession.

The National Code of Medical Ethics forbids this.

THE EDUCATION OF THE LAITY.

We publish elsewhere a communication on the subject of the education of the laity in matters relating to medicine and medical men. Our correspondent feels that the extreme activity with which quack remedies are thrust upon the people is creating a hurtful impression as to the true value of the medical art, and that people are encouraged to look more and more with favor upon the pretensions of secret specifics and confident charlatans. The fact that the annual consumption of patent medicines is so enormous, and that so many religious journals stand upon a firm financial basis, gives much support to our correspondent's assertion. We are certainly quack-ridden, and perhaps the rising generation is becoming quack-educated.

Some remedies are suggested. The plan of having medical societies arrange for the delivery of popular educational lectures seems to have worked well in certain sections. In other places it would not be practicable. American adults dislike the didactic, and the last thing about which the average healthy man wants to know is his body and how to take care of it. There are some simple and fundamental facts, however, which could with profit be impressed upon young people who are still in school. For example, many even intelligent persons are not aware that reputable physicians do not advertise themselves or their special merits, do not promise a cure for so much pay, and do not believe that any single method of treatment relieves all diseases. The young might well be taught also that there are certain diseases for which there are no infallible cures, that there are others of which cure or relief occurs only under certain conditions, and that the advertisements of specifics should always be regarded with the utmost suspicion. There are thus many things which it would be of service for people to know in the practical relations of life, and which should properly form part of the education of the young.

But, besides such education of the laity in the schools and by suitable lectures (in which latter there is an element of danger), our correspondent suggests the use of the pen and the press. He has already put in practice a scheme which he describes and which has already been commented upon favorably. It consists in distributing sheets of paper to be used as wrappers, which are printed on both sides with selections from the Code on the "Duties of Patients to their Physicians," interspersed with anecdotal paragraphs. While some good can come, no doubt, from the diffusion of ethical instruction in this way, human nature is obdurate, and the didactic wrappers carry, perhaps, too little authority to initiate any great moral changes.

It has been further suggested that some authoritative and energetic association of medical men be formed who shall push this matter of the instruction of the laity into the wiles of quackery and the truths of rational medicine. Some counter-advertisements in the pages of the religious journals might even be attempted.

A MEDICAL COLLEGE CRITICISED.

A correspondent of *La France Médicale*, who states that he lived four years in Richmond, Va., and presumably graduated in medicine there, describes the status of medical education in that city. Richmond, he says, possesses a medical college and two hospitals. The medical students, however, do not go into the hospital wards at all, a sort of clinic being arranged for them from the dispensary and walking patients. "After two years, no more, of questionable study, the young men leave furnished with doctors' diplomas." The writer states that the education thus received is so imperfect that the establishment of post-graduate colleges is a legitimate outcome of the demand by conscientious practitioners for more thorough clinical instruction.

The main charges made against the Richmond colleges are those of slovenly teaching, short course, and incomplete clinical instruction.

The *Southern Clinic* asserts that the condition of affairs thus described is true. We do not imagine that the Richmond Medical College is worse than a good many other second-rate provincial schools. No doubt the faculty do their best with the competition for students at Washington, Baltimore, and the State University.

None the less it is not agreeable to have the faults of our educational methods heralded in leading foreign journals. It is the penalty which the profession must pay for its long indifference to the impositions put upon it by the speculative financial bodies known as medical colleges.

SOME BAD MEDICAL LAWS.

A cry comes from our brilliant contemporary *The Medical Age*, that the medical registration law, enacted a year ago by the legislature of Michigan, is worse than a failure. The law in question appears, from the *Age's* description, to be a glittering illustration of legislative incapacity, and has so far only worked mischief to the profession. In the first place, it allowed every one who had practised in the State as a physician or surgeon for five years to register and obtain a license to pursue his work. In this way a legal status was given to quacks, mountebanks, Indian doctors, medical students, etc. Furthermore, the law makes no provision for registration after September, 1883.

Another State in which complaints against the medical law are made is California. Here we have an interesting example of catholicity as regards medical sects. The legislature has established three Boards of Examiners—

Regular, Homœopathic, and Eclectic—each being empowered to grant licences. "Our medical law does not give entire satisfaction," writes the Secretary of the State Board of Health. "It is known that many have been licensed who are totally and notoriously unqualified to practise medicine."

Another State where complaints are made against the medical law is Mississippi. It establishes an examining board in each congressional district, and permits every one who practised medicine at the time of the passage of the law to register as a qualified practitioner for the small sum of ten cents.

In a number of the States the medical laws are bad because they are incomplete, these defects being chiefly of a negative character. In other States, and in those above referred to, the law is positively mischievous because it legalizes quackery and keeps it legalized.

Many of the defects in the medical laws are due to inexperience or actual stupidity; some seem to have been helped into existence by the quacks. But none of them show that good medical legislation cannot be made a means of purifying the profession and benefiting the public. Future legislators can learn from past experience that the main points to be looked out for are: Careful provision for licensing and registering, efficient means for carrying out the law, and sufficient penalty for its violation.

MEDICAL ATTENDANCE ON SERVANTS.

A CORRESPONDENT in a recent issue of the London *Lancet* inquires as to the propriety, or rather the right, of a medical man to decline attending the servant of an employer who does not himself consult him professionally. We are glad to note that our esteemed contemporary takes the eminently just and sensible ground that the physician has a perfect right to refuse his services where he deems it incompatible with a proper maintenance of his own dignity and independence; while, on the other hand, an employer has the same undeniable right to secure what physician he wishes, if the contract be agreeable to each.

A far more practical and important point in connection with this troublesome question seems to have escaped the notice of our transatlantic brethren, and that is, the amount of the fee. Is the physician justified in charging the servant the same fee he would the employer? Now, of course, we are not familiar with the social exigencies pertaining to a community embracing the large establishments of a landed aristocracy. The semi-feudal condition of the Southern States during that halcyon period broadly designated as "before the war," is probably as close an analogy to such a state of society as American history can furnish. But even this analogy between "Jeames" and "Uncle Remus" is, on the face of it, an imperfect one. The intense vocabulary of the modern *renaissance* has indeed yclept the worthy possessor of abnormally developed gastrocnemii "vassal" and "retainer;" but his sable prototype, the "chattel," combined the real and the romantic in a far more practical sense, for he even formed a very palpable and prominent part of the "worldly goods" with which his mistress was endowed with her wedding ring, which is plainly the *ultima thule* of æstheticism. Now, to continue, soberly (for we assuredly do not wish to seem to treat this matter lightly), whatever may be the custom abroad, it was the custom of our Southern practitioners in the *ante-bellum* days to charge a full fee for treating the plantation hands. This was not only a very natural but very just procedure, when we consider the distinction between slave and servant. The intrinsic value of the slave being enormous, while that of the servant is practically *nil*, not only was the responsibility thrown on the doctor proportionately magnified, but also the value of his advice; while the master was not only ready but anxious to remunerate him accordingly.

Except under the peculiar circumstances we have stated, and which are no longer active, we have no hesitation in affirming that the pursuance of a policy which claims from an employer a full fee for treatment of his servant is not only radically wrong but really suicidal. Of course there may be exceptional cases where a person may be willing to pay for attention to an old and valued servant the same amount he would for a member of his own family. A physician is certainly justified in accepting such an offer, but that is a different thing from demanding it as a right. It may be argued with a certain degree of plausibility, that, when an employer calls in a physician for a servant, and the doctor conscientiously extends the same advice exactly to the one as he would to the other, he deserves an equal return. We should remember, however, that it is only a kindness, after all, in the employer to provide for a sick servant. Unless he is considerable of a brute, if the disease is not contagious and the patient can be made at all comfortable, he will not merely submit to the temporary annoyance of a disturbance to his domestic economy, but will also endeavor to obtain for her suitable medical attendance. But he is no more bound in equity to pay the same fee that he would for himself, than he is bound to give her the same comforts and attention, the same room and the same trained nurse, he would obtain for himself if ill. The whole affair is a gratuity, a gratuity most people are willing to bestow if possible. It would also be well not to forget that our services to the servant are *not* as valuable to the employer as they are in the case of a member of his family. If we endeavor to claim this, it naturally dawns upon our beneficent friend that here is a point beyond which charity ceases to be a virtue, and poor Bridget is forthwith consigned to a bed in the free wards of the nearest hospital, or if this happens in the country and there be no poorhouse handy, is permitted to pull through without medical advice. Let us briefly recapitulate the consequences.

1. *To the patient:* Life, health, and occupation are placed in more or less jeopardy because a short-sighted member of a liberal profession inordinately seeks the "whole hog or none." (*Mem.:* He gets none.)

2. *To the employer:* (*a*) A feeling that this particular personal exudation of the "milk of human kindness" has decidedly soured; (*b*) a firmly fixed idea that the medical profession in general, and his own medical adviser in particular, are extortionists of the deepest dye; (*c*) an emphatic determination never to call in again that particular physician, and none other of that ilk, save for the most urgent need; (*d*) an additional emphatic determination to have all his servants treated *gratis* at hospitals or dispensaries to save bother.

3. *To the doctor:* (*a*) Loss of *prestige* with an influential family; (*b*) gain of one $5 fee possibly; (*c*) loss of a certain number of $2 fees; (*d*) a decided conviction that his vaulting ambition has in this particular instance palpably o'erreached itself.

4. *To the profession:* (*a*) A disastrous false impression unnecessarily created in the minds of the laity; (*b*) actual loss of every small fee otherwise obtainable from the employer.

5. *To the community:* (*a*) An uncalled for increase in the number of pauper patients to be supported.

Comment is unnecessary. It is often well to strike a balance sheet, *à la* Robinson Crusoe, even if the result be more striking than satisfactory. In a way it focuses the situation to one's mind's eye. We feel convinced that the sober second thought of the profession and the good sense of its members will not fail to perceive that our dignity and self-respect lose not a jot by a manly consideration for the simple rights of others. We do not believe that the policy we have alluded to is widely, or by any means universally, adhered to. Still the temptation does exist, and we should be quick to spy out the fallacy it rests on, and avoid yielding to its influence. If any practitioner believes his "good name" will not permit him to treat a servant without the accessory of a fee which has some pretentions to "great riches," let him hand over the case to a younger brother, who has less "good name," but perchance more good sense. In this particular, at least, let us be intelligent enough not to "kill the goose which lays the golden egg."

THE COLLEGE OF MIDWIFERY.

We ventured some time ago to speak favorably of "The College of Midwifery" established in this city. The institution appeared to be respectable, and the work it proposed was a useful one. We regret to state that this "college" has forfeited all claims to the respect and support of the medical profession. It has adopted the extraordinary policy of openly soliciting patients and pupils for its infirmary and lecture-room, offering a per cent. of the receipts to the doctor or layman who sends in the material. We doubt if proposals so impudent and preposterous were ever distributed among the profession of the city before. As a matter of curiosity we present a specimen of the confidential offer made.

CONFIDENTIAL.

For Letter of Advice and Recommendation, we would be pleased to have you accept the following fees:

Student to College ..... $10.00.
Patient to Infirmary ..... *25 per cent. on all Operations.*
Patient to Maternity ..... $10.00 *to* $25.00.
Confinements attended in Person, entire Fee.

The extraordinary action of the College of Midwifery, in issuing notices such as these, is the more to be deplored since it has tended to do an injury to its Censors, Drs. Mundé and Dawson. We have received a letter from these gentlemen in which they state that the course taken by the "college" was entirely without their knowledge and approval.

It is unnecessary for us to say more. The College of Midwifery, of New York has collapsed, morally, and will no longer receive the countenance in any way of reputable medical men.

News of the Week.

The Erie County Medical Society held its annual meeting on January 8th. The Committee on Legislation made a report concerning the efforts made to have a bill passed by the Legislature for the establishment of a State Board of Examiners. The committee stated that from every county in the State words of commendation for the project have been received. In several counties action has been taken by societies indorsing the bill. The Erie County society was congratulated upon the fact that this matter is now before the entire medical profession of the State, and there is concerted action in behalf of the object. A resolution was adopted urging the Senators and Assemblymen from its district to interest themselves in behalf of the bill.

Twenty-Six Trained Nurses were graduated from the Bellevue Hospital Training School on January 8th. Dr. T. Gaillard Thomas delivered an admirable and practical address to the young women. He charged them to avoid a few shortcomings with which the professional nurse is sometimes justly charged: Causing unnecessary annoyance and trouble to the family, carelessness in wearing clothing which cannot be washed, and which disseminates germs of disease, ignoring country physicians, getting into relations of maudlin sentimentality with patients, despising menial duties in the sick-room, and not carefully guarding family secrets. Each graduate was presented with a gold badge, the emblem of piety, watchfulness, and beneficence.

Cholera.—A letter from the State Department, received by the Secretary from Mr. E. E. Farman, an American judge of the International Tribunal of Egypt, gives the following: "There is a continuation of the cholera in Alexandria. There are from one to three cases a day resulting in death, and many more in which the attacked recover. According to the previous history of the disease in Egypt it will probably continue all winter, and perhaps much longer. After the cholera epidemic of 1865 there were isolated cases for two years. The general state of health, aside from cholera, has been bad at Alexandria. Fever in various forms has been, and still is, quite prevalent. The number of deaths from cholera in all Egypt during the summer has, from all the information I can get, been double that given in the official reports."

At Calcutta the cholera is decreasing. The United States Consul gives the total number of deaths from cholera at that place for the two weeks ending November 10th at forty-four.

Yellow Fever is reported by Assistant-Surgeon Main, U.S.M.H.S., as still prevailing at Manzanillo, Acapulco, and along the coast from the latter place to Panama, but that it is of mild form, though at one time the mortality at the first-mentioned place was ninety-two per cent., and the Captain of the Port, who is also a Justice of the Peace, was removed for not enforcing the quarantine regulations with more vigor.

The United States Consul at Guaymas reports, under date of December 12, 1883, that the so-called yellow fever has almost disappeared from the State; no cases

now in this port, and the port authorities grant clean bills of health to vessels departing. In the capital of the State, Hermosillo, a few cases of a mild type are said to exist. During the past month but fourteen deaths from all diseases occurred in this port, seven of which are said to have been from the so-called yellow fever, among whom were M. F. Chapin, of Maine; O. N. Funk, of Michigan, and an Englishman, named F. Jolly. It is to be hoped that this fatal fever will never return to this coast; its ravages during the months of August, September, and October will long be remembered by the people of Sonora.

Yellow fever has again made its appearance at Rio de Janeiro after a lapse of twenty-four days, and the United States Consul states that the weather is very hot and dry.

The reappearance of yellow fever at Buenos Ayres is also reported by the United States Consul at that place.

The total number of deaths from yellow fever at Havana for the three weeks ending December 29th was twenty-seven.

A circular has been issued by Secretary of the Treasury Folger to the collectors and other officers of customs, informing them that, by recent regulation of the Peruvian authorities, all vessels arriving in a Peruvian port are required to be provided with a Bill of Health certified to by the Peruvian consul at the port of departure, in default of which they will be subjected to quarantine and fine.

INTERNATIONAL CONGRESS OF HYGIENE.—An official communication from the Secretary of State gives the information that "according to a note from the Minister of the Netherlands, here, the International Congress of Hygiene will hold its next session at the Hague, on August 21st next, and that governments, states, corporations, etc., are invited to send delegates."

EPIDEMIC OF MEASLES IN BALTIMORE AND WASHINGTON.—Surgeon-General Hamilton, U.S.M.H.S., received official notification of an epidemic of measles as now existing in Baltimore. Over five thousand cases of this disease occurred in Washington, D. C., up to December 31st, so says the Health Officer.

NEW YORK PATHOLOGICAL SOCIETY.—At the anniversary meeting, held January 9th, the following officers were elected for the ensuing year: *President*—Dr. George F. Shrady; *Vice-President*—Dr. R. E. Van Gieson; *Secretary*—Dr. Wesley M. Carpenter; *Treasurer*—Dr. John H. Hinton; *Editor*—Dr. John C. Peters; *Associate Editor*—Dr. Frank Ferguson; *Committee on Admissions and Ethics*—Drs. F. R. S. Drake, J. C. Peters, J. H. Hinton, V. P. Gibney, and J. H. Ripley; *Committee on Publication*—Drs. Beverley Robinson and E. C. Wendt.

ANNOUNCEMENT CONCERNING THE WARREN PRIZE ESSAY ON CANCER.—Dr. J. Collins Warren announces that six essays were received on the subject of the "Probability of the Discovery of a Cure of Malignant Disease, etc.," and for which a prize of $1,000 was offered. None of these essays was deemed worthy of the prize.

A BILL TO REGULATE THE PRACTICE OF MEDICINE AND SURGERY, was introduced in the General Assembly of Virginia on Tuesday last.

THE HOSPITAL COLLECTIONS up to January 9th, amounted to $22,532.85. In 1882, the amount was $33,862.72; in 1881, $42,535.47; in 1880, $44,371.97; in 1879, $26,455.07.

NEW YORK ACADEMY OF MEDICINE: ELECTION OF OFFICERS.—At the annual meeting held January 3, 1884, Dr. Robert F. Weir received 101 votes for Vice-President, Dr. Henry D. Noyes, 42; Dr. C. R. Agnew, 101 votes for Trustee, Dr. S. S. Purple, 43; Dr. F. A. Castle, 101 votes for Treasurer of the Board of Trustees, Dr. J. H. Hinton, 44; Dr. Daniel Lewis, 100 votes for member of Committee on Admissions, Dr. E. H. Janes, 43; Dr. C. D. Varley, 106 votes for member of Committee on Ethics, Dr. F. V. White, 35; Dr. W. Gill Wylie, 106 votes for member of Committee on Education, Dr. John Shrady, 38; Dr. A. Jacobi, 101 votes for member of Committee on Library, Dr. H. D. Nicoll, 44.

DR. GUSTAVE RIVET, *interne* of Charité, died recently of diphtheria contracted during his service in the hospital.

THE BRITISH OPHTHALMOLOGICAL SOCIETY has decided to found a museum and a library.

A GYNECOLOGICAL SOCIETY IN PARIS.—A new society, called the Gynecological and Obstetrical Society, has been organized in Paris.

THE TREATMENT OF PUERPERAL FEVER.—In the article on this subject, page 15, the forty-third line, first column, should read: "Dr. Garrigue has used carbolic acid regularly for eight years for hand instruments," etc. Last line should also read: "To the embarrassed mind it is clear as day that Dr. Garrigue's remarkable success is due to non-interference," etc.

THE PRIZES AWARDED BY THE ACADEMIE DE MÉDECINE were distributed at its meeting December 18th. Nine prizes were awarded, the total amount of money bestowed being 18,500 francs, or about $3,700. The whole number of prizes offered was fourteen.

THE LATE DR. SIMS AND AN ALLEGED INSTANCE OF "TRANSFERRED IMPRESSION."—The *Philadelphia Medical and Surgical Reporter* quotes editorially the following story, which is interesting on many accounts: "The daily papers tell us that at three o'clock one morning Dr. Mackey (a prominent physician of Washington) rose suddenly from his bed and began pacing the floor, which disturbing his wife she asked what ailed him. He answered that he had such a horrible and vivid dream that he could not rest after it. He had dreamed that his friend, Dr. J. Marion Sims, of New York, appeared to him, with a face like that of a corpse, and said to him: 'James the Fourth is dead.' Dr. Mackey said to his wife that the dream so depressed him that he would not go back to bed again, so he went down to his office and sat there at work until after daylight. Before breakfast a telegram was brought him announcing Dr. Sims' death at 3 A.M., exactly the hour when Dr. Mackey, rousing from his dream, had looked at his clock. Looking at it again he found that it had stopped at three o'clock. Dr. Sims was in the habit of calling himself James the Fourth, as he was the fourth of the same name in his family." The editor of the *Reporter* accepts the above as true. This may be so, but even if so, one must re-

member the very great possibility of a coincidence. Millions of people dream that some friend is dead. In a few cases they seem to hit it. Besides, in the present case, Dr. Sims did not die at 3 o'clock A.M. but at 3.15.

VIRCHOW ON THE TUBERCLE BACILLUS.—At a recent meeting of the Berlin Medical Society, Professor Virchow made some observations upon the subject of tubercle, and the tubercle bacillus, which are of considerable interest. The occasion was the reading of a paper by Falk, in which that observer reported the results of some experiments made by him, in order to test the power of the bacteria of putrefaction to neutralize the special activity of the tubercle bacilli. His experiments had been negative. Virchow in his remarks did not commit himself fully to the theory of the bacillary origin of phthisis. He called attention to the distinction which must be made between a contagion and an infection. In an infectious disease, like malaria, the whole of the bodily tissues are affected—there is, in fact, a dyscrasia produced. In a contagious disease the poison acts upon certain parts of the body, and from these foci the injurious influences are disseminated and affect the system. In this latter class of diseases one must place those in which the morbid processes are produced directly by the micro-organisms, and we could not expect that here one attack would secure indemnity against another. Virchow referred to the recent experiments of Roloff, which confirmed those earlier made by himself, to the effect that anthrax could be produced by inoculating animals with blood free from organisms. He admitted that Pasteur's preventive inoculations were a success from a scientific point of view, but failed, as yet, to act well practically. He referred to a dialectic difficulty caused by the wrong use of the word "tubercle," and thought that cheesy pneumonia and phthisis, if really caused by a specific bacillus, ought to be called bacillary diseases, rather than tubercular, since the latter name is more anatomical and clinical.

ANTI-VIVISECTION IN GERMANY.—The anti-vivisectionists in Germany have succeeded, in opposition to the Cultus-minister von Gossler, in getting a petition through the Chamber of Deputies requesting the Government to consider how far vivisection could be dispensed with as a means of teaching and investigation. The decision of the Government has been received, to the effect that the matter is still under consideration, and that it is intended during the present winter session to demand an opinion from the whole of the medical faculties, and that a memorial on the subject was in course of preparation.

BERLIN UNIVERSITY.—The number of students for the winter semester is 4,635. The number of medical students is 878, among whom are 80 Americans.

DR. A. F. HOLT, of Cambridge, has been appointed Surgeon-General of Massachusetts.

A GOVERNMENT QUARANTINE STATION for imported cattle has been permanently established at Garfield, N. J.

DR. E. DARWIN HUDSON, Jr., has been appointed visiting physician to Bellevue Hospital, *vice* Dr. Henry F. Walker, resigned.

THE LONDON INTERNATIONAL HEALTH EXHIBITION.—The proposed Health Exhibition to be held in London next summer is destined to be a success. The Queen has become its patron, the Prince of Wales chairman of the Executive Committee, and prominent members of the nobility have interested themselves in it. The Corporation of London has already voted $25,000 to help it along. *Punch* states that there are to be effigies in wax of the writers on *The Lancet* among the objects of interest in the exhibition.

THE SIMS MEMORIAL FUND.

To the Medical Profession and Others throughout the World:

The great achievements of Dr. J. Marion Sims call for some more lasting testimonial than obituaries and eulogies. To him medical science is indebted for much brilliant and original work, especially in gynecological surgery. Those who have been benefited by his teachings and new operations; and such as have had the direct advantage of his personal skill are among the first to recognize and acknowledge this debt.

To him is due the honor of giving the first strong impulse to the study of gynecological surgery in America.

It is believed that the medical profession everywhere, the vast number of women who owe their relief from suffering directly to him, and those who realize the benefits he first made possible, will gladly unite thus to honor the man through whose original and inventive genius such blessings have been conferred upon humanity.

At the suggestion of many friends, therefore, the subjoined committee has been organized, and it is proposed that a suitable monument be erected to his memory in the city of New York.

To this end the active co-operation of the medical profession and the many other friends of Dr. Sims throughout the world is respectfully solicited. Contributions of one dollar and upward may be forwarded to the journal which has been constituted the treasury of this fund—THE MEDICAL RECORD, New York.

FORDYCE BARKER, M.D., *Chairman.*
GEORGE F. SHRADY, M.D., *Secretary.*

THOMAS ADDIS EMMET, M.D., New York.
T. GAILLARD THOMAS, M.D., "
WILLIAM T. LUSK, M.D., "
WILLIAM M. POLK, M.D., "
PAUL F. MUNDÉ, M.D., "
S. O. VANDER POEL, M.D., "
FRANK P. FOSTER, M.D., "
SAMUEL D. GROSS, M.D., Philadelphia, Pa.
WILLIAM GOODELL, M.D. "
JAMES R. CHADWICK, M.D., Boston, Mass.
WILLIAM H. BYFORD, M.D., Chicago, Ill.
A. REEVES JACKSON, M.D., "
THAD. A. REAMY, M.D., Cincinnati, O.
GEORGE J. ENGELMANN, M.D., St. Louis, Mo.
R. BEVERLEY COLE, M.D., San Francisco, Cal.
H. F. CAMPBELL, M.D., Augusta, Ga.
R. B. MAURY, M.D., Memphis, Tenn.
E. S. LEWIS, M.D., New Orleans, La.
J. C. SEARCY, M.D., Tuskaloosa, Ala.
R. A. KINLOCH, M.D., Charleston, S. C.
HUNTER MAGUIRE, M.D., Richmond, Va.
S. C. BUSEY, M.D., Washington, D. C.
HARVEY L. BYRD, M.D., Baltimore, Md.
W. J. HOWARD, M.D., "

Other names may be added to this list from time to time.

Reports of Societies.

NEW YORK ACADEMY OF MEDICINE.

Annual Meeting, January 3, 1884.

FORDYCE BARKER, M.D., LL.D., PRESIDENT, IN THE CHAIR.

REPORTS OF COMMITTEES.

IN the general report of the Council, it appeared, from the report of the Assistant Librarian, MR. J. S. BROWN, that there had been a marked increase in the number of readers during the last year, made up of physicians, lawyers, and laymen from all parts of the State.

The report of DR. S. T. HUBBARD, Treasurer of the Board of Trustees, showed a balance of the Academy fund of $295.27; of the library fund of $4,312.40; of the special library fund of $0.70; of the general permanent fund of $1,191.96; of the fund for the liquidation of the mortgage of $118.87.

The report of the Recording Secretary, DR. W. H. KATZENBACH, showed that 20 candidates had been elected, of whom 17 had completed their membership; that death had removed 7 resident, 1 non-resident, and 1 honorary Fellow; and 1 had removed by resignation. The whole number of members is 380 resident, 18 non-resident, 43 corresponding, and 6 honorary Fellows.

The reports of the Foreign Corresponding and the Statistical Secretary were read by titles.

The report of the Committee on Admissions showed that 30 physicians had applied for membership, 23 of whom had been recommended, and 7 are yet before the Committee.

The report of the Committee on Library spoke of the steady growth and the prosperous condition of the library.

PRESENTATION OF A MEMORIAL PORTRAIT OF THE LATE JAMES RUSHMORE WOOD, M.D., LL.D.

DR. F. H. BOSWORTH said that in presenting this memorial portrait to the Academy as a gift from Dr. Wood's old students, he might speak of their preceptor as one of the great surgeons of this country, or as a clinical teacher; but it was not as a great surgeon nor as a clinical teacher that Dr. Wood endeared himself most unto them, but as an earnest, faithful, and soul-inspiring friend of the medical student. It was in this spirit that he asked the President of the Academy to accept the memorial portrait of their old preceptor, painted for them by the accomplished artist, Mr. T. Hicks.

THE PRESIDENT, in behalf of the Academy of Medicine, accepted this valuable addition to the portrait gallery, and requested Dr. Bosworth to express to those who together with himself had so nobly and wisely contributed for this purpose, the Academy's full appreciation of the gift, which as a work of art presented a striking degree of high merit, and would always be an ornament to the present or any future hall the Academy might possess. As a portrait, it is not a mere topographical outline of the lineaments of our friend and distinguished associate, but it faithfully expresses the force of character and the power of will and ambition of a reflecting and originating mind. As it hangs upon these walls it will always be a great moral lesson to the young men who come hither, as to the nursery of future professional growth, and an illustration of how ability, honest work, indefatigable industry and perseverance will secure eminence and distinction, and these without the aid of those favoring elements, wealth and family influence, and helpful pushing of enthusiastic friends.

DR. FREDERIC S. DENNIS then delivered a memorial address, in which he reviewed the life of the distinguished surgeon, who was born in 1813, and received the degree of doctor in medicine at Castleton, Vt., in 1837. It was an interesting and faithful picture of the life-work of Dr. Wood in private and hospital practice, his labors in behalf of hospitals and training-schools, and for the welfare of the general profession. A touching reference was made to the last time his voice was heard in public debate, when in the hall of the Academy he met the views set forth by his distinguished friend and colleague, Dr. J. Marion Sims, concerning the treatment of gunshot wounds of the abdomen, whose memoir was soon to be read by Dr. Emmet.

At the close of the memoir, DR. MURPHY, of Mount Vernon, N. Y., one of the two only surviving fellow-students of Dr. Wood, was introduced to the Academy.

DR. HUNT, Surgeon to the Pennsylvania Hospital, was also introduced to the Academy.

DR. THOMAS ADDIS EMMET then read a

MEMOIR OF THE LATE J. MARION SIMS, M.D., LL.D.,

who was born in 1813, and graduated in medicine at Jefferson Medical College in 1835. "Dr. Sims was by nature a surgeon, and one of the most dexterous operators he ever witnessed. He was bold and self-reliant, never at a loss, and his ingenuity was unequalled. He was in no sense a plodder, for his mind and body were always too restless and active. He was so fertile in resource when I first knew him that he perfected scarcely a tithe of the brilliant conceptions passing constantly through his mind, and it was impossible to see him perform the most simple operation without learning something new." Such was the estimate of his memorialist, than whom no one is better qualified to speak.

Dr. Emmet then gave a brief synopsis of the work done by this eminent surgeon and "the father of American gynecology." Brief reference was made to her who "continued as the sweetheart of his youth and helpmate through a long life, who devoted her life to her husband, and upon whom no person was ever more dependent upon another than he was upon her."

"My relations," said Dr. Emmet, in closing, "with Dr. Sims in early professional life were as close as that of a son could be. Later on, from circumstances over which I had no control, we did not meet for years. During the summer of 1882, and in London, while I was closely watching the steps of an operation, some one came into the room breathing quickly, as if he had been ascending the stairs. For a second of time I was annoyed, as this gentleman sidled up so close to me, but his hand passed into mine as he whispered, with a familiar voice, 'How are you, old Emmet?' and I shook Dr. Sims by the hand for the last time."

Speaking of the Woman's Hospital, Dr. Emmet said all credit must be given to Dr. Sims for the conception of this institution as well as the power of convincing others of the necessity for such a hospital, and his name must be forever identified with it as the originator. But his conception could never have reached a realization without the aid of others, for he had none of the qualifications of an organizer. Every one, with a single exception, connected with the project had received credit from some source, but speaking of the things of which he knew Dr. Emmet said that to Dr. Fordyce Barker more than to any other individual are we indebted for the early organization of the Woman's Hospital, and Mrs. Barker served two years as Secretary of the first Board of Managers of the Woman's Hospital Association.

SECTION IN OBSTETRICS AND DISEASES OF WOMEN.

Stated Meeting, December 27, 1883.

ALEXANDER S. HUNTER, M.D., CHAIRMAN.

DR. HUNTER was re-elected Chairman, and Dr. Henry Griswold was re-elected Secretary.

DR. E. L. PARTRIDGE read a paper entitled

PUERPERAL FEVER—AN OUTLINE OF ITS NATURE, MANIFESTATIONS, AND MANAGEMENT.

For convenience, Dr. Partridge adopted Spiegelborg's classification, chosen by Lusk, in his chapters on the sub-

ject of puerperal fever. A practical study of the clinical history and pathology of the affection seen in the puerperal patient leads to the conviction that there is, in the vast majority of cases, an underlying *septic* element in their causation. In a small proportion of cases the fever depends at the outset upon one or more local conditions, septic poisoning occurring at a later period in the puerperal state. In a few rare cases we may believe that we have simply the manifestations of local affection from first to last. Some would question the truth of the last statement, but the author of the paper could not believe that the recently-delivered woman might not suffer from cellulitis or peritonitis, as well as that those diseases might arise independent of childbirth or septic infection. In almost all instances, however, full facilities for clinical and pathological examination will reveal unmistakable indications of the absorption of septic poison from some portion of the genital tract.

Dr. Partridge then spoke of the facilities for the introduction and development of septic poison in the lying-in woman, such as from the placental site, lacerations, etc. Septic material may be brought in contact with the absorbing surfaces in two ways: (1) Autogenetically, that is, by decomposition of blood, fragments of secundines, inflammatory products, etc.; (2) hetero-genetically, that is, from exposure to atmosphere containing emanations from patients suffering from septicæmia, erysipelas, scarlet fever, diphtheria, or from direct inoculation, etc.

With regard to the nature and mode of action of the septic poison, Dr. Partridge thought the view that the contagious principle consisted of microscopic organisms (micrococci) afforded a ready explanation of the numerous lesions of puerperal fever, the variation being due to the different degrees and extent to which the blood-vessels and lymphatics were permeated. Besides, he regarded it as reasonable that the quality and kind of this microscopic poison might vary, and therefore produce a variety of lesions.

The author of the paper then reviewed briefly the clinical history of endocolpitis and endometritis, in the simple form, and also that known as ulcerative, diphtheritic, or septic, which is far more serious.

Parametritis or pelvic cellulitis is the puerperal inflammation which occurs most frequently, and it may be either septic or non-septic in character. Perimetritis or pelvic peritonitis is often associated with parametritis. General peritonitis is a common puerperal affection, and there are two varieties: (1) That which is due to septicæmia; (2) that due to an extension of the pelvic variety. In the septic form, pain and tenderness are wholly secondary to the prostration due to the blood-poisoning. The most prominent symptom for diagnostic purposes is persistent abdominal distention with indications of septicæmia.

Septicæmia has a protean character, but the symptoms are clearly demonstrable after the second week, such as chills, profuse sweats, rise and fall of temperature (never reaching normal), irritable stomach, yellow skin, coated tongue (disposed to be dry), low delirium and hallucinations, respiration shallow and hurried, and mental faculties dull. There will also be present indications of one or more of the local septic inflammations.

With reference to prevention and treatment Dr. Partridge maintained that an uncontaminated atmosphere was the first essential. Inasmuch as the poison can be conveyed from place to place, the greatest care must be exercised by physicians, nurses, etc., lest they carry the disease from one patient to another. In prolonged labors it is necessary, and it is proper in *all* cases, to use disinfectant vaginal injections *during* labor, and their judicious use, not too frequent, is called for *after* labor. The proper management of the third stage of labor is important, looking to the complete expulsion of clots and secundines and permanent uterine contraction. The hands of the accoucheur should be scrupulously clean, especially the finger-nails, and rendered antiseptic.

In cases of septicæmia, when the point of inoculation is within the uterine cavity, or where it is known that this cavity contains decomposing fluid, warm carbolized intra-uterine injections should be repeated every few hours, and they usually cause the temperature to fall promptly. Care is necessary that the injection be made slowly, and that there is free escape for the fluid. If sloughs occur they should be removed as early as possible, and contiguous exposed surfaces should be covered with iodoform, or touched with carbolic acid or tincture of iodine. For local or general parametritis leeches only may be beneficial. When exudation is present vaginal injections of hot water and externally poultices may be serviceable. Pelvic abscesses should be treated by aspiration or incision. Opiates to relieve pain, quinine for its antipyretic and supporting effect, and stimulants as indicated. Food should be concentrated and easy of digestion. General blood-letting is improper at any state of general septicæmia. If arterial sedatives are used their effect must be watched with the greatest care. Salicylic acid may reduce temperature, and the wet pack, carefully employed, may be equally useful. Stimulating enemata, assafœtida or turpentine, or even aspiration of the intestines with fine needles will afford some relief from excessive tympanites.

Dr. John C. Peters said that one readily gets the idea that there are two varieties of puerperal fever: first that which is of septic origin, and second the affection which does not depend upon sepsis. The remedies, also, can be divided into two classes, opium, calomel, carbolic acid, quinine, and camphor should not be used in the septic form of the disease, for micrococci will live in these drugs.

On the other hand, the mineral acids, such as sulphuric, nitric, muriatic, will destroy these organisms when used in very weak solutions. Twenty drops of a solution consisting of *ten* drops of the strong sulphuric acid to one ounce of water, will kill the bacteria in two ounces of fluid. Even a five-grain solution of tartaric acid will kill bacteria quicker than will carbolic acid.

Dr. Peters spoke especially of the value of bichloride of mercury and turpentine as germicides, the former of which will kill the germs when used even of the strength of 1 to 20,000; of course a much stronger solution could be used with safety.

Dr. Paul F. Mundé saw nothing in the paper to which he wished to take exception. He wished to say, however, that Dr. Partridge had omitted to mention one of the causes of puerperal fever. He had always believed, as had been advocated by Dr. Thomas in a recent paper, that in the majority of cases puerperal fever is puerperal septicæmia due to absorption of poisonous matter from the genital tract. But Dr. Mundé would not make this the cause for *all* cases; that is, he could not help leaning somewhat toward the view that puerperal fever may be a disease by itself. He had seen cases in which there was no evidence of septic absorption. He would say, therefore, that while in most cases puerperal fever is puerperal septicæmia due to absorption of septic material from the genital tract, there are cases in which puerperal fever is due to a cause, the exact nature of which is unknown.

With regard to intra-uterine injections, Dr. Mundé thought that neither the author of the paper nor Dr. Thomas had spoken sufficiently of the exact indications for their use. It will not answer to simply say that every time the temperature rises or there is a fetid discharge from the vagina we must wash the uterus out. Not at all. There must be more exact indications. He then referred to a case under his care at the time Dr. Thomas read his paper, and in which there was a rise of temperature to 102° F. before listening to the paper, and to which, after the meeting, he returned with fear and trepidation and found the temperature up to 103° F. There was no fetid lochia. It was at about the time for the beginning of the secretion of milk. He did not in-

ject the uterus, the temperature fell under the influence of aconite and twenty grains of quinine, and the subsequent progress of the case was favorable.

Dr. Mundé believed that the mere rise of temperature did not indicate the use of intra-uterine injections; nor did the mere existence of fetid lochia. There must be an association of the two, or a combination with other symptoms, as with a chill, or manifest constitutional disturbance, to call for their use in the puerperal state. The very *absence* of lochial discharge may be a good reason for washing out the uterus, fetid or otherwise. He then referred to a case in which the lochia was retained on account of anteflexion of the uterus, absorption took place, and a chill occurred. He corrected the malposition, and a large quantity of fetid lochia was discharged. The mere absence of fetid lochia, therefore, would have been an unsafe guide in deciding whether or not the uterus should be injected. He did not wash out the uterus unless the condition of the lochia meant something more than mere offensive or fetid lochial discharge.

The very worst cases of puerperal fever are those in which there is entire absence of local symptoms, and the patient appears to be quite comfortable.

As to the manner of giving intra-uterine injections, Dr. Mundé did not agree with Dr. Thomas at all. He had met with cases in which Davidson's syringe, in the hands of competent nurses, had produced the most severe collapse. He objected to propelling a stream of water with force into the puerperal uterus. He also believed there is a time when intra-uterine injections are no longer useful. When the temperature is not reduced permanently within forty-eight hours, the injections having been given three or four times a day, the measure will, as a rule, fail. It is true there are exceptions to this rule, as there is to all others. He was quite sure that he had several times seen a chill with rise of temperature follow an intra-uterine injection. When the discharge was no longer offensive and the uterus was widely dilated, he had seen patients who were suffering from the worst form of puerperal fever.

With reference to parametritis and perimetritis during the puerperal state, Dr. Mundé had seen cases where the pulse and the temperature were those of septicæmia, but an examination always revealed an exudation in the neighborhood of the uterus, and made the diagnosis clear. When there is such a local inflammation, *do not wash out the uterus.*

As to the drug to be used, he was inclined to favor the bichloride of mercury, 1 to 2,000, for intra-uterine injections. His rule is, in every case of confinement, and especially if there is an outlook for a labor of unusually long duration, or it is likely to be difficult, or there is a probability that operative interference will be necessary, to wash out the vagina, perhaps after every vaginal examination, then immediately after the child is born, and also if he had introduced his hand into the uterus, to wash that cavity out with *carbolized ice-water* of the strength of two or three per cent. But why not hot water carbolized? He did not use hot water habitually because it could not be employed very hot without the liability of injuring the patient, and when only warm it is not a hæmostatic. Ice-water, however, is effectual as a hæmostatic, and it will not injure the patient. Then administer a syringeful of the fluid extract of ergot hypodermically deep into the abdominal walls, and also give ergot, quinine, and strychnia until the uterus is thoroughly involuted, and two or three vaginal injections daily.

Dr. S. Baruch, on invitation, made a few remarks and asked Dr. Mundé if he nsed vaginal injections as a prophylactic measure after normal labor.

Dr. Mundé said yes; and he directed that they be given once, twice, or three times a day while he continued his visits.

Dr. Partridge also said that he had always used them for that purpose, but not oftener than twice a day.

Dr. Baruch thought it was inconsistent to regard the genital tract after normal labor as in a condition of traumatism, or like a wound after an operation, and then treat it altogether different. He believed it to be a practice fraught with some danger. At least, it had been found so in German Hospitals. He wished to record himself as opposed to these injections.

Dr. Daniel Brown also wished to put himself on record against the continuous washing out of the vaginal tract after normal labor. The genital tract of every woman after normal delivery is not necessarily in a septic condition, and besides he believed that considerable injury might be done by disturbing the patient, as must needs be for giving them. The genital tract is not an open one. If the canal is offensive, of course cleanse it with whatever remedies may be regarded as the best. With regard to quinine, he had never seen any benefit follow its use, in either large or small doses, for reducing septic fever.

Dr. Mundé said that while it might not be absolutely necessary to give vaginal injections as a prophylactic after normal labor, yet he had not seen any damage done by ordinary vaginal injections with a *fountain* syringe; and thought it wise to resort to them.

With regard to the claim made by Dr. Brown that the ordinary lochia is not necessarily septic and that the genital tract is not necessarily in a condition of laceration, or in a condition favorable to the development of puerperal septicæmia, Dr. Mundé said Ahlfeldt had demonstrated that the most poisonous lochia was entirely inoffensive, and he further believed that no primipara is delivered without some lesion of the genital tract, and of multiparæ there is probably not a case in which there is not some laceration about the cervix. Besides, Ahlfeldt had shown that the most dangerous period in the puerperal state for septic infection is about the third day, and he therefore believed that vaginal injections should be given for four, five, or six days at least, when perhaps they might be safely omitted.

Dr. Brown said when he spoke of normal condition of the vagina, he did not mean absolutely, but that there is not sufficient injury to necessitate the disturbance of the patient for giving the injections. Of course, if any reason showed itself, as proved by the symptoms or the local conditions, he would use them without hesitation.

Dr. Baruch said he had learned that day of a case of puerperal fever, to which Dr. Mundé was called in consultation. The physician in attendance began to use carbolized vaginal injections on the third day, and, on the fifth day after confinement puerperal fever developed, and probably the woman would have died had she not received the skilful attention of the consulting physician.

Dr. Mundé said he did not recall the case.

Dr. Charles Jewett, of Brooklyn, had been accustomed to say that no physician can treat a score of fresh wounds with thorough antiseptic precautions without becoming a convert to antiseptic surgery. Theoretically, his convictions are equally strong as to the value of antiseptics in the treatment of obstetric wounds, which he believed always exist after labor. Practically, however, his experience is not fully in accord with his theoretical convictions as to the necessity for all the antiseptic precautions that have been recently advocated. A little more than six months ago he began a series of experiments in the maternity wards of the Long Island College Hospital to determine the value of certain antiseptic measures in child-bed. These observations thus far cover about fifty cases, too small a number, it is true, to be of much value as evidence, but the results are at least suggestive. The first thirteen of these cases were conducted under the direction of a skilled obstetrician, with every safeguard except the use of special antiseptic measures. Thirty-six cases immediately following were conducted under the following precautions: The wards were alternately vacated and disinfected with chlorine

on the 1st and 15th of each month. The beds were renewed throughout, even to the straw, on the discharge of the patient, so that each new patient went upon an entirely fresh bed. The bedsteads were cleansed antiseptically. The usual antiseptic measures were enjoined in case of the medical attendants and nurses. The vulva was regularly cleansed and constantly protected during the puerperal period with a guard of oakum dipped in carbolic or bichloride solution.

Of the thirteen cases, two (nearly sixteen per cent.) had temperatures which at no time in the first week of the puerperium exceeded 99½° F. Of the thirty-six cases, twenty-five (nearly seventy per cent.) at no time in the first week had temperatures above 99½° F.

To test the value of the vaginal douche as a prophylactic measure, with a few exceptions every other case was douched twice daily or oftener during the lying-in period, beginning at the close of labor. Half the cases, therefore, were douched and half not douched. The fluid used was, in a portion of the cases, three per cent. carbolic solution; in the majority of them a 1 to 1,000 bichloride solution, both used warm. The temperature record thus far shows practically no evidence in favor of the douche. Involution, however, appeared to be more rapid in the douched cases. True, this evidence is not conclusive against the value of the douche, for should septic matter in a given case gain access to the passages in spite of other precautions, then the douche might save the patient from child-bed fever.

For curative purposes the value of the douche is beyond question. He had resorted to intra-uterine injections only when vaginal irrigation failed to reduce the temperature within a few hours. For the intra-uterine douche he had not been wholly satisfied with the Chamberlain tube. He had had a smaller tube made, three-eighths inch in diameter with two holes only, on opposite sides and close to the end.

There are certain forms of child-bed fever, however, in which the antiseptic douche can have no curative value.

Dr. Partridge, in closing the discussion, said he certainly believed the vaginal douche is capable of doing a great deal of harm unless properly used. He would not trust to any nurse to give it, unless he knew positively that she was skilful. Then, if used twice in twenty-four hours, even in cases of normal labor, it can do no harm.

With reference to thorough drainage, which the anatomical conformation of the parts is said to afford, he thought it a uniform experience that when a digital examination is made the finger is covered with blood and mucus, offensive, and in a condition to readily become poisonous in character. He did not believe there is any single indication for the intra-uterine douche; it is only when there is a combination of symptoms which indicate the presence of decomposing substances in the uterus that it should be resorted to, and then not too frequently. He favored the practice of supplementing it by the use of iodoform and glycerine—a ten per cent. solution—already mentioned in his remarks on Dr. Thomas' paper before the Academy.

With reference to puerperal fever depending upon some poison not septic in character, he must confess that he believed the question still to be an open one, although he was unable to see why those cases might not be of septic origin. They are cases of intense toxæmia, although we do not know what the nature of the poison is, and he could not see why it might not be septic.

Dr. Partridge believed that labor is never completed without some laceration about the cervix.

The Section then adjourned.

A Man who Abstains from Liquor, as shown by insurance tables, at 20 years of age has a chance of living 44.2 years; at 30, 36.5 years; at 40, 28.8 years. An intemperate man's chance at 20 is 15.6 years; at 30, 13.8; at 40, 11.6.

Correspondence.

OUR LONDON LETTER.

(From our Special Correspondent.)

THE NEW MEDICAL BARONETS—PEERAGES FOR MEDICAL MEN—MESSRS. BOWER AND KEATES—MR. MARSHALL ON NERVE-STRETCHING—MYXŒDEMA AND CRETINISM.

London, December 15, 1883.

Two more members of our profession have just been made baronets, viz., William Bowman and Joseph Lister. The former has long held the foremost place as an ophthalmic surgeon in London. His fame does not, however, rest on that alone, as many years ago he obtained a position as an original investigator in Physiology and Histology. It will doubtless be remembered by most of your readers that Mr. Bowman was the Honorary Treasurer of the Industrial Medical Congress held in London in August, 1881.

As the originator of the antiseptic system bearing his name Mr. Lister has gained a world-wide reputation, so that it is superfluous to speak of his merits here. Mr. Lister has also distinguished himself by various physiological researches.

So long as we have hereditary honors the above-named gentlemen cannot but be regarded as worthy recipients of them. Why should not peerages be awarded to medical and scientific men, though? The poet Tennyson has been elevated to the peerage. Why not Bowman, Jenner, Lister, and Paget? There could be at any rate no objection to making them life peers. Your readers will doubtless view the matter with different ideas, but if we are to have peerages at all surely such men as these are as worthy of them as Lords Wolseley and Alcester and life-destroyers like them.

The case of Messrs. Bower and Keates continues to attract attention. These gentlemen were prosecuted for malpraxis by the parents of a child suffering from diphtheria, for which tracheotomy was performed by them. On the part of the prosecution, I understand that an attempt was made to secure the adverse evidence of several well known specialists. I am glad to say these gentlemen declined to appear against their professional brethren. The case broke down, although the public prosecutor had taken it up. The subject has been officially brought before both the College of Physicians and the College of Surgeons and on Monday evening last a meeting was held at the house of Sir William Jenner and a subscription list started toward defraying the legal expenses incurred in the defence.

The Bradshawe Lecture at the College of Surgeons was delivered on the 6th inst. by the President, Mr. Marshall. Several interesting facts were brought out by Mr. Marshall. He showed that nerves can be stretched, though they are not so extensible as one might imagine. Mr. Marshall showed experimentally that a nerve will not stretch very much more than a piece of tendon. After being stretched the recoil is considerable—to nearly its original length. Mr. Marshall showed that nerves will bear a very considerable traction without breaking. Stintzing observed that the healthy sciatic nerve would bear a strain equal to half the weight of the animal's body, *i.e.*, one of seventy-five pounds for a man weighing one hundred and fifty pounds. But in dealing with diseased nerves it was unwise to apply so great a force, and thirty pounds was a reasonable force to apply, and this was as hard as a man could well pull a nerve, holding it between his finger and thumb, so that practically there was little danger of rupturing the nerve. Less force must of course be applied to smaller nerves. Mr. Marshall believes the operation of nerve-stretching to be safe, and an efficient one for the cure of neuralgia.

Some interesting facts relative to myxœdema were brought up at the recent discussion at the Clinical So-

ciety of London. Dr. Semon gave a *résumé* of Kocher's researches, from which it appeared that the extirpation of the thyroid gland has in some instances given rise to cretinism. If experience should show this to occur often it will add another to the dangers already attending the operation. It would seem, though, that where the extirpation of the gland is not total, but one lobe is left, that cretinism has not been observed to ensue.

OUR PARIS LETTER.

(From our Special Correspondent.)

THE BANQUET TO PROFESSOR CHARCOT—THE ANALYSIS OF VARIOUS DIETETIC DRINKS AND ALIMENTARY SUBSTANCES—A NEW MEANS OF ADULTERATING MILK—HOW ANALYSES ARE PAID FOR BY INTERESTED PARTIES—THE AMERICAN PORK QUESTION—THE NUMERICAL STRENGTH OF THE MEDICAL PROFESSION IN FRANCE—THE INCREASE OF LUNACY IN FRANCE.

PARIS, December 21, 1883.

PROFESSOR CHARCOT has been entertained at a banquet on the occasion of his election as member of the Academy of Sciences. The banquet was well attended, and great credit is due to those who organized it. Several leading members of the profession were present, and MM. Bouchard and Joffroy, his former pupils, made appropriate speeches and proposed the health of M. Charcot. The latter gentleman responded in graceful terms which were much applauded. M. Paul Bert, who was prevented attending the banquet, sent a letter of congratulation, which was read by M. Liouville, and as it is rather interesting in more than one point of view I send you an extract of it.

After apologizing for his unavoidable absence on such an auspicious occasion, he said: "Being a physiologist of the laboratory, I have no fetichism nor fanaticism, and I am far from believing that experiments on the living animal are the only means for making physiological discoveries. The entire history of science would protest against such an allegation, and the work of Charcot and his pupils, of his school in fact, is the most eclatant demonstration of the power of the means of action which a medical man can employ for the progress of physiology. It was in this point of view that I placed myself when I was called upon to give my opinion, at the last competition for the membership of the Academy of Sciences. Leaving aside the discoveries of a purely medical order, which M. Vulpian exposed with the greatest authority, I insisted on those which appertained to the science I cultivate, and, after M. Charcot, physician, I had to show up M. Charcot, physiologist. If it is true that science consists in the establishment of a constant relation between phenomena always 'antecedent,' and others always 'consequent,' is it not evident that it signifies little whether this relation is established in starting either from the one or the other of these orders of phenomena. The vivisector descends from the antecedent to the consequent, the physician or surgeon, by necropsy, from the consequent to the antecedent. Both concur, by means diametrically *inverted*, to the constitution of the science of pathological or normal physiology, *it is all one.* If the causes of error present themselves in greater number, more dangerous before the physician, he has the greater merit to *avoid* them and to arrive at a just conclusion."

The results obtained by the analyses of the various dietetic drinks and alimentary substances, at the Municipal Laboratory during the month of November is lamentably interesting and instructive, for, according to the official report of the analyst attached to the laboratory, almost every article of drink and diet in Paris is adulterated. Even the so-called natural mineral waters are not altogether exempt from the reproach of adulteration, as many of them are manufactured in Paris, so that those who drink these waters to avoid the water from the Seine are simply laboring under a delusion.

Apropos of adulterations I may mention that a new means of adulterating milk has recently been brought to the notice of the Academy of Sciences, which consists of adding glucose to milk. The fraud in this case is the more easily practised, as the density of the milk is not affected, and the glucose imparts a sweetish taste to the milk which is rather pleasant than otherwise.

The French would do well to take measures effectively to correct or prevent the scandalous abuses so freely practised in their own country before they condemn the articles of food imported from other parts of the world. I have never been able to ascertain the real object or utility of the Municipal Laboratory in Paris, which is a recent institution, and kept up at an enormous expense. I am told that anybody could take anything to the laboratory, and for a small fee have it analyzed. The analyst furnishes the applicant with the result of his analysis, but the latter is quietly told that the report given him is for his own private information or personal satisfaction, and that he cannot make use of it before a court of justice if he chooses to prosecute the miscreant.

You will remember the great sensation that was caused in this country by the importation of salted pork from America, which was condemned as always containing trichinæ. By a decree of February 18, 1881, this importation was prohibited within the territory of the French Republic. But it was found that the poorer classes were the greatest sufferers by the prohibition, as salted pork constitutes their principal food. Recent investigations having proved that when pork was salted with care, and good brine employed, there was no serious danger of trichinosis, as even if the parasites abounded in the pork they are completely destroyed by cooking, on the report and recommendation of the Committee of Public Hygiene, who were consulted on the matter, the decree above referred to has been revoked.

The Minister of Commerce has just published his quinquennial report, giving the numerical strength of the medical profession in France. The following table indicates the changes that have taken place since 1876, the date of the publication of the preceding report, and which is brought down to the end of 1881:

	1876.	1881.
Doctors of medicine	10,743	11,643
Officiers de Santé	3,633	3,203
Pharmaciens.....	6,232	6,443
Sages-femmes	12,847	13,403
Herbalists.....	983	972

It will be seen from the above table that there has been a marked increase in the number of doctors and of sages-femmes or midwives. In the Department of the Seine alone there was, in 1881, an increase of 555 doctors, 21 officiers de santé, 30 pharmaciens, and 395 midwives over the strength of 1876.

An official report, emanating from the Prefecture of the Seine, states that during the last ten years the number of lunatics furnished by the Department of the Seine has increased to an alarming extent. There are at present 8,352 lunatics in this department, or 272 more than there were last year.

TO ABORT A STYE.—Dr. Louis Fitzpatrick writes to the *Lancet* that he has never seen a single instance in which the stye continued to develop after the following treatment had been resorted to: The lids should be held apart by the thumb and index finger of the left hand, or a lid-retractor, if such be at hand, while the tincture of iodine is painted over the inflamed papilla with a fine camel's-hair pencil. The lids should not be allowed to come in contact until the part touched is dry. A few such applications in the twenty-four hours are sufficient.

A WESTERN DOCTOR ON THE DOCTORS OF THE WEST.

To the Editor of The Medical Record.

Sir: Allow me to briefly reply to Dr. Rafter's strictures on some statements recently published by me, under the heading of "Random Notes of a Western Trip." The letter of my censorious Old Code friend of Holton, Kan., in the West, places me in the uncomfortable position of him who, in the praiseworthy attempt to be clear, has only succeeded in making himself thoroughly misunderstood. For the astute Holton practitioner imputes to me a mean opinion of Western doctors, whereas I had endeavored to point out wherein consisted their superiority over some of their Eastern *confrères*. In other words, where I intended praise he thinks he has discovered obloquy and censure. Now a correction of the errors which Dr. Rafter has fallen into, for himself alone, would savor too much of a deliberate attempt to make much ado about nothing. I should never have asked the privilege of your columns for so insignificant a matter, but Dr. Rafter has unanimously elected himself the champion voicer of "the sentiments of nine-tenths of the profession of the West." He has "something of an acquaintance among the profession," and having "looked up the statistics" is able to "come near at it." Such eminent qualifications naturally constitute a clear title to the assumption of the duties of a responsible representation of the general sentiment of the profession. It is, therefore, in his capacity of mouth-piece for the Western doctors that I propose to offer Dr. Rafter a little explanation.

While travelling in the Northwest I received certain impressions, from conversations with physicians and otherwise. Among other things I thought I perceived a tendency there to make less fuss over the Code than has for some time been customary in New York. Strictly personal feelings in the matter prompted the expression of my preference for the apparently peaceful condition of the professional life of the West, as compared with our Eastern bellicose attitude. But between such purely personal impressions, not yet ripened into immutable conviction, and actual facts it is quite possible that there may be a wide difference. I never claimed that my impressions were anything but impressions, and I am very willing to stand corrected by one who speaks with the statistical authority of Dr. Rafter. Accordingly I am now to believe that the West knows and cares more about the Code than the East.

Again, there is no doubt in my mind that the particular Western doctor whom my critic alludes to "can quote from the lectures of Flint, or Loomis, or the venerable Alonzo Clark as readily." The deplorable fact is, the Eastern practitioner cannot "quote readily" at all in that direction. Moreover, I fully concur in Dr. Rafter's opinion that "they (meaning the Westerners, I presume) can practise medicine as intelligently and surgery as successfully as practitioners *of the same ability* there" (meaning the East, I suppose). So they can. What's to hinder them? And, by the way, they practise as well as they know how to in Timbuctoo, or the moon, for that matter. Let me respectfully enquire what has the ability to quote authorities and to practice just as well as one knows how to, what has that to do with one's knowledge and appreciation, ignorance or contempt of the Code?

And since the question of specific ability has been broached, which is a subject as remote as possible from Code contentions, let me hasten to assure my critical friend that, after all, we have a larger proportion of skilled and justly famous men in the East than can possibly be found in the West. Dr. Rafter ought to have known, before being told, that there live, for example, right here in the city of New York, more world-famed leaders of the mind medical, more eminent specialists in the various departments of medicine than he can collect in all the great Northwestern region from St. Paul to Portland. It is no disparagement of the intelligence and learning of the Western doctors to admit this plain truth. In the nature of things it could not well be otherwise. As for the standing of the general practitioner it is quite likely true that the Western doctor is as good as the same kind of a doctor anywhere else. But it was hardly necessary for Dr. Rafter to submit this startling novelty to our consideration.

Respectfully yours,

Edmund C. Wendt, M.D.

136 West Thirty-Fourth Street,
New York, December 31, 1883.

THE EDUCATION OF THE LAITY.

To the Editor of the Medical Record.

Sir: A much-needed reform is the adoption of some means by which we can counteract the growing heresy and skepticism about the practice of medicine. The seductive advertisements of quacks and patent-medicine vendors create this condition of the public mind. They improve every opportunity to bring themselves and their wares to favorable notice. We do not.

The religious and secular press teems with such literature, drug stores dispense cords of it, and we behold the humiliating spectacle of an unsuspecting clergy consenting to become the mouth-pieces for heralding the alleged virtues of the many patent and proprietary nostrums that flood the land. Everywhere, from the darkest recesses of the vilest water-closets to the rocky facets of the grandest mountain scenery, the hand of quackery with paste and paint has "got in its work."

The first efforts of the child to practically apply its meagre knowledge of letters is to try to decipher these miserable blotches that deface and disgrace our fair landscape. Need we ask "What shall the harvest be?" There is no disguising the painful fact that the people are running after strange gods. To expostulate, to weep and wail and gnash our teeth, to find fault, and to set up a pharisaical standard of "I am holier than thou" will only make bad matters worse. The question, then, naturally arises, what can be done? What steps can we take to counteract the evil? It is easy to find fault, and those doing so should always propose something better, and the proposition to be valuable must be practicable as such. We submit that the medical profession must educate the public in their own interest. How? We answer first by popular lectures, second by printed matter. As to the first method we confess that we cannot at all times get the ear of the masses, but we can attract them through others; for instance, through college classes, teacher's institutes, agricultural and horticultural societies, beekeepers' and dairymen's associations, etc. In an adjoining county it has been the custom for a number of years to hold an *annual* joint session of the Teachers' Institute and the County Medical Society. This session lasts two hours and is addressed by some member of the profession of acknowledged skill and ability as a lecturer on such popular subjects as "The Germ Theory," "The Human Hand," etc.

These lectures have become the occasion for a popular gathering of the people, every seat and available inch of standing room in a large hall being occupied. On one occasion at which the writer was present an ex-Member of Congress, one of the most substantial citizens of the county, became so interested that at the close of the lecture he arose from his seat, and by way of eulogy said, "That lecture is the best thing I ever took from a doctor." An ovation was tendered the doctors in general and the lecturer in particular, and everybody was convinced that the regular profession in point of scientific attainments was without a rival, and justly merited the patronage and confidence of the public.

It is needless to say that the thousand-and-one "cure-

alls," "specifics," "isms," and "pathies," do not find the foothold here they would under other and more favorable circumstances. The school-teachers of the county, the county officers, the lawyers, the people of culture and refinement that naturally drift into our county centres, are thus educated, brought face to face with the fact that we are in the van, the true investigators and the exponents of all that is new and useful in medical science.

To deliver a lecture of this kind, and at once succeed in reflecting credit on the lecturer, the local physicians, and the profession at large requires rare talent. The selection of such a lecturer is made by a special committee of the medical society, appointed by the president. A member of the faculty of some medical college, who has the good of the profession at heart, is most generally selected.

He is expected to donate his time, while the society defrays the necessary travelling expenses. It costs something to make an effort of this kind, but if persisted in and judiciously carried out, it *pays well* in the long run, and proves to be a most effectual method of eliminating medical heresy from the public mind.

Next, but not nearly so good, is the practice of physicians lecturing before the societies and associations above-mentioned. These lectures are generally voluntary on the part of local medical talent, but sometimes doctors even become dry and tedious, or, what is worse still, make a painful display of ignorance, resulting in more harm than good. Much better talent would be obtained if the local medical society would, by committee, make the selection.

We now come to consider that silent, yet most potent of all means for educating the public, printers' ink—a power that has been so abused by evil-doers that the medical profession shrinks from its use. Hence it is that we have committed the absurdity of enacting rules defining "*The Duties of Patients to their Physicians*," and then carefully stowing them away about one copy to each doctor, and taking no steps to get them before the public. We dare not publish such matter in the lay press. To print it for distribution as a tract would not "reach the spot;" the refined and cultured portion of the community would call it impudent, and the illiterate would find nothing in it to interest them and, though most in need of such training, would give it little or no attention.

As a means of placing the teaching of this excellent article of our Code before the public in such a manner as to offend none and interest all, we have taken its subject matter and had it printed in short paragraphs on wrapping-paper, so interspersed with items of wit and wisdom and useful receipts as to interest the general reader. The arrangement of the printed matter is such that the sheet may be torn or cut into halves, quarters, eighths, or sixteenths, without marring the text, thus enabling the dispenser to obtain a wrapper adapted to any sized bottle or package, the sense being complete on both sides. The people best supplied with books and papers would pay but little attention to a mere wrapper. Should they notice it no criticism could be offered, for the wrapping-paper so closely resembles a leaf from a medical journal that the uninformed would never think of its being anything else. On the other hand, the illiterate, who have few or no books or papers, eagerly grasp at everything of the kind. They are the victims of patent medicine men, and of all others are the most in need of orthodox medical teaching. It is here that we have the best field for missionary work, which no false notions of professional dignity should deter us from cultivating.

We are justly entitled to the privilege of informing the public of their duties toward us. If done at proper times and places we elevate rather than lower our professional dignity.

F. H. DARBY, M.D.

MORROW, O., December 20, 1883.

Army and Navy News.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from December 29, 1883, to January 5, 1884.

APPEL, DANIEL M., Captain and Assistant Surgeon. Having relinquished the unexpired portion of leave of absence granted by S. O. 68, Headquarters Division of the Atlantic, November 16, 1883, and reported for assignment, assigned to duty at Fort Porter, N. Y. S. O. 247, par. 2, Department of the East, December 29, 1883.

HAVARD, VALERY, Captain and Assistant Surgeon. Assigned to duty in charge of office of Medical Director, Department of Texas, during the temporary absence of that officer. S. O. 164, par. 2, Department of Texas, December 31, 1883.

Official List of Changes in the Medical Corps of the Navy, for the week ending January 5, 1884.

HUDSON, A., Medical Inspector. From duty as an Assistant to the Bureau of Medicine and Surgery, on the 18th inst., to the U. S. S. Lancaster, as the relief of Medical Inspector N. L. Bates, who is to be detached and ordered home.

RUSSELL, A. C. H., Passed Assistant Surgeon. From the Navy Yard, Washington, to hold himself in readiness for sea service.

Medical Items.

CONTAGIOUS DISEASES—WEEKLY STATEMENT.—Report of cases and deaths from contagious diseases reported to the Sanitary Bureau, Health Department, for the week ending January 5, 1884:

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Cases.								
December 29, 1883.....	0	9	64	3	35	33	0	0
January 5, 1884.....	0	8	76	2	60	58	0	0
Deaths.								
December 29, 1883.....	0	2	2	2	1	2	0	0
January 5, 1884.....	0	5	4	0	5	14	0	0

CLINICAL NOTES BY THE WAY.—Dr. J. S. Prettyman, of Milford, Del., sends us a number of items of practical interest:

Clinical thermometers.—Many of your readers seem to be in trouble because of the fact that thermometers are so often broken. Why, do they not know that this is just what the makers desire! Hence they encase them loosely in hard, unyielding cases, so that a little bang or jar shall snap them against the unyielding case. If it could be made to their interest to do so they would, no doubt, line the cases with a soft, elastic cushion, into which the delicate little instrument could be gently forced, and thus made to repose in a soft, elastic bed, in which they would be safe from all ordinary accidents.

New Remedy for Burns.—During a recent visit to a patient in an adjoining town, I was hastily summoned to see a woman badly burned (while lighting a fire with coal oil) on the hands, arms, and around the body where her clothes were fastened to her person. Not having any of the ordinary remedies at hand, except cold water, which, *en passant*, is one of the best where it can be properly applied, I mixed hog's lard with *four times* its weight of common bread soda (the bicarbonate), which

is used here in the homes of many for mixing with the dough in bread-making, and applied it as a salve to the burned parts, and I never saw a case of the kind do better under any treatment. The wounds were kept well covered with it, and they all healed very nicely without inflammation and with very little suppuration. Indeed, they seemed to *dry up* under it. I shall try it in the future in all similar cases, until I find something better.

Antiseptic.—For twenty years or more I have been in the habit of closing up all fresh wounds, that were clean or could be made clean, and that were not extremely ragged, with bandages kept well saturated in the following:

℞. Powd. myrrh ..... ℥ viij.
Powd. capsic ..... ℥ j.
Ol. anisi ..... ℥ ss.
Alcohol ..... O. iv.

M. Make a tincture which I call *tinct. myrrh comp.*

If the bandages are saturated with it they form, with the gum, a nice case all around and over the wound, and retain the parts *in situ* in an excellent manner. No treatment that I have ever used or seen used by others seems to me to be quite equal to this in the excellence of the results. It appears to keep down inflammation, prevent suppuration, pain, and soreness, and greatly to promote the healing process. Lately I have improved the preparation as follows:

Tinct. Myrrh Comp. cum Benzoinum.

℞. Powd. myrrh ..... ℥ viij.
Powd. benzoin ..... ℥ iv.
Powd. capsic ..... ℥ j.
Alcohol ..... O. iv.

M. Make a tincture, and use as above indicated.

This treatment of suitable wounds I can recommend in the highest manner. Twice a day the dressings should be saturated and no change made in them for a week, unless untoward symptoms make it necessary. When the dressings are to be changed, saturate them well with alcohol to soften the gum, so that the bandages will not adhere.

Vinum lobelia comp.—For more than a quarter of a century I have used a preparation under the above title, which has become a household remedy throughout all this section of country. While perfectly safe, it is used as an emetic, febrifuge, carminative for colic in infants, and to promote sleep; also for croup, coughs, colds, etc. When given in moderate doses it soothes the system, allays fever and nervous irritation, promotes perspiration, and quiets cough. The worst you can do with it is to produce emesis, which it most certainly does if given in quantities large enough, while at the same time it is sufficiently stimulating to prevent the tendency of the drug to relax and prostrate. The preparation is made as follows:

℞. Powd. lobelia inf. ..... ℥ ij.
Powd. American valerian (cypripedium pul.) ..... ℥ j.
Powd. peppermint,
Powd. aniseed ..... āā ℥ ss.
Sherry wine ..... O. j.

M. Let the mixture stand for a month or more in a warm place with frequent agitation. Filter when required for use.

The dose is from ten drops for a very young infant to a whole teaspoonful for a child three years old, mixed in a little hot water sweetened, or some simple herb-tea. The dose may be repeated as often as thought desirable, or increased or lessened as needed, always resting in the fact that emesis is the worst it can do. When used for coughs, colds, etc., it may be made into a syrup by mixing with simple syrup in any quantities or proportions desired. In my own family, and many others under my professional care, this remedy has superseded all anodynes, cough syrups, croup remedies, etc., and the children—ten in my family—have been raised on it. When used for larger children, for fevers or as an emetic, plenty of warm herb-tea—catmint, pennyroyal, sage, etc.—as the vehicle, aids both the diaphoresis and the emesis, as vomiting is always easy on a full stomach, but more difficult on an empty one.

Corrosive Sublimate in the Treatment of Diphtheria.—Dr. H. T. Hanks of this city, writes: "I wish to call the attention of the profession, through your columns, to a therapeutic agent in diphtheria, which in my hands has served me better than any other remedy. I refer to *corrosive chloride of mercury.* I have used it in all cases which have came under my observation for two years. There has been no prevailing epidemic of this disease in New York in that time, but I had eleven cases in families which I attend. In all of these cases I have been well pleased with the effects of minute doses of corrosive sublimate in solution, and I believe it to be the most valuable medicine at our command in this disease. I have no theory to advance to account for its well-known power of destroying living germs. I have used the remedy in doses of $\frac{1}{100}$ of a grain in one (1) drachm of water, giving it every hour, night and day. In my last two cases, I have had even better success by using the medicine with a common hand atomizer. I have been agreeably surprised at the rapidity with which the exudation disappeared under this treatment. My formula for inhalation by hand atomizer is the following, viz.:

"℞. Hydrarg. chlorid. corrosiv ..... gr. ij.
Glycerinæ ..... ℥ j.
Aquæ rosæ ..... ℥ vij.

"M. Sig.—To be used with atomizer for three to five minutes every half hour.

"There is no necessity of giving the sublimate in any other form while this treatment is pursued. I insist, of course, upon thoroughly disinfecting the sick-room by the usual means at our command, and over and above this I have generally used Hoffman's Anodyne in small doses. But I am convinced that the corrosive sublimate has done more for me than all other means combined."

Surprising the Urethra.—"In urethral stricture I have," says M. Diday, "in order to avoid confounding it with a spasm, and to overcome this, if it exists, an infallible method. When the end of the sound is in contact with the coarctated portion of the canal I suddenly put the following question to the patient: 'How long is it since you have been with a woman?' If it is a simple spasm the sound immediately enters."—*Medical Chronicle.*

Royal Doctors.—The prince physician, Duke Charles Theodore of Bavaria, M.D., has been promoted to a lieutenant-generalcy by the king, but will not take any active part in military matters. A second scientific scion of the Wittelsbach family, Prince Louis Ferdinand, recently married to a sister of the King of Spain, has in press a monograph of comparative anatomy on the human and animal tongue, with upward of a hundred illustrations. He made the investigation for his work partly in the anatomical institute of Professor Rüdinger, partly in his own laboratory at Nymphenburg Castle.

Cure for Cramp.—The simplest and best method, says the editor of the *Pacific Medical and Surgical Journal*, is a bandage applied above or below the knee, preferably the former.

How to Keep a Hypodermic Syringe in Order.—Dr. Frank W. Epley, of New Richmond, Wis., writes: "Get a good one with a nickel barrel, graduated on piston-rod, and with the hole in the barrel *beveled* on inside, so that you can remove the piston, spread the leather valves, and, owing to the beveled edge of the barrel, return it with ease in perfect condition. A lachrymal syringe with a point adjusted makes a royal syringe."

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Original Articles.

STATISTICS OF FOUR HUNDRED CASES OF RHEUMATISM, WITH ESPECIAL REFERENCE TO TREATMENT.

TREATED AT THE ROOSEVELT HOSPITAL.

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INTRODUCTION.

THE following pages present statistics, derived from the study of the histories of four hundred cases of rheumatism, acute, subacute, and chronic, treated at the Roosevelt Hospital.

These are *unselected* cases: they are, in fact, all the cases which have occurred at this institution, from its opening, to September, 1882, a period of over ten years.

Muscular, gonorrhœal, and syphilitic rheumatism, as well as rheumatoid arthritis, have been omitted from consideration.

The order in which the various items have been classified is as follows:

An enumeration of the histories of all the cases is first given. In these histories, all the items of interest, and all those relating to, or forming a basis for subsequent statistics are given. Then follow:

A. Tables showing the number of cases treated in each year.

B–F. The relative frequency of attacks in different months; *a*, dating from time of entrance into the hospital; *b*, dating from commencement of attack, as learnt from the history of the patient.

G. The maximum temperatures and condition in which patients were discharged.

H. The relative frequency of attacks at different ages.

K. The duration of joint-symptoms before and after entering hospital, of the pyrexia, together with the treatment employed and the condition in which the patient was discharged, the cases being grouped, according to the maximum temperature reached.

L. The same, in which *only* the cases which left the hospital *cured* are given; here the cases are grouped according to the treatment employed, and subdivided according to the maximum temperature reached.

M. N. Comparison of the results obtained by different methods of treatment.

O. Unpleasant effects produced by the various drugs used in the treatment—"salicylism," "iodism," etc.—their relative frequency and nature.

P. Comparison of the efficiency of salicylic acid, given in capsules and in solution, respectively.

Q. Nature and frequency of complications of rheumatism.

R. Relative frequency of the cardiac valvular lesions in rheumatism.

S. Relative frequency of association of two or more cardiac lesions.

T. Liability to heart complications from rheumatism at different ages.

U. Relation of the occurrence of cardiac complications to the severity of the attack, as judged by the maximum temperature.

W. Frequency of relapses.

Explanation of Remedies and Doses.—Salicylic acid, from the time when first used until February, 1879, was administered in solution; after this date in capsules. The dose in which it was given, unless otherwise mentioned, was ten grains every two hours at first, gradually increasing the intervals of its administration to three and four hours, and then giving it only three times a day, as the pyrexia and joint symptoms subsided; its use being persevered in, however (gr. x. t.i.d.), for some time after the symptoms had disappeared.

The dose of Rochelle salt was one drachm three times a day; of the iodide of potassium it was ten to twenty grains three times a day, and of the wine of colchicum and iodide of potassium it was ten to twenty grains of each three times a day, unless otherwise stated.

In the report of the treatment, when two or more drugs have been used at the same time, the names of these are connected by "and." When one drug was used after the other had been discontinued, the names of the two are separated by a period. This also applies to external remedies.

No *abbreviations* have been made use of, excepting the employment of the letters C, I, and U, which represent cured, improved, and unimproved, respectively, referring to the condition in which the patient was discharged from, or left the hospital.

All temperatures are axillary.

Unless stated to the contrary, all heart complications already existed at the time when the patient entered the hospital.

Much has been said and written against statistics, and this prejudice is not without foundation. Our medical journals are flooded with deductions based upon the observation of too small a number of cases, and are apt to be biassed by the fact that the writer very often compiles his statistics to favor his version of facts remaining to be proven.

No one will claim perfection for statistics, however complete they may be; but when the number of cases drawn from is large, and the writer does not start out with the intention of proving or disproving any one version or opinion of disputed matters, no such great objection can be made to such statistics.

All that has been attempted in these pages has been to state *facts* as they were *found* in the records of the hospital, and to *compare* and *tabulate* these facts, and very few deductions have been made.

The histories of the cases employed were taken by a number of different observers, all properly qualified, as the high standard of the competitive examination for appointment to the resident staff of this hospital proves, and the histories having been taken thus, by such a large number of persons, the chance of their being biassed is absent.

In concluding this introduction, the writer wishes to acknowledge his indebtedness to Dr. William H. Draper, of the attending staff of the Roosevelt Hospital, for his kind permission to use the hospital records for the purposes of this thesis.

Number of case.	Name.	Date of admission.	Sex.	Age.	Nativity.	Occupation.	Number of the attack.	Variety of the attack.	Duration: Of joint symptoms before entering hospital.	Duration: Of joint symptoms after entering hospital.	Duration: Of pyrexia after entering hospital.	Duration: Of stay in hospital.	Condition when discharged.	Maximum tempera'ture.	Treatment.	Disagreeable effects of remedies employed.	Relapses: Time after cessation of joint symptoms.	Relapses: Duration.	Relapses: Treatment.	Complications.
										Days.	Days.	Days.					Days.	Days.		
1	C. B....	Jan. 6, '72	M.	45	Germany...	Laborer	Several.	Subacute.	.....	4	.....	4	I.	Normal.	Ferr. et quin. Potass. iod., gr. x. t.i.d.					
2	H. O...	April 22, '72	M.	50	Ireland	Seaman	2	Chronic...	6 months..	25	.....	25	U.	Normal.	Pot. iod., gr. x. t.i.d. Iodide and colchicum.					
3	J. C....	May 13, '72	M.	47	Ireland.....	Barkeeper	Several.	Subacute.	5 days ...	12	.....	32	C.	Normal.	Pot. iod., gr. x. t.i.d.....	Iodide eruption.				
4	A. W...	May 14, '72	F.	23	Ireland.....	Domestic.	2	Subacute.	8 days ...	15	... ..	15	C.	Normal.	Rochelle salt and colchicum.					
5	C. E. P.	May 27, '72	M.	47	England ...	Shoemaker	Several.	Subacute.	6 weeks ..	9	.....	9	I.	Normal.	Rochelle salt, 3 ss., and colchicum t.i.d.					
6	C. H ..	June 2, '72	M.	44	Germany ...	Wood pedler....	2	Subacute.	3 months .	12	.....	12	I.	Normal.	Rochelle salt and colchicum; milk and beef-tea diet.					
7	S. G...	June 18, '72	M.	42	Ireland.....	Laborer	1	Subacute	2 months..	19	.....	19	I.	Normal.	Tonics; Fuller's lotion locally.					
8	H. D...	July 1, '72	F.	44	Ireland.....	Domestic.....	1	Subacute.	10 days ..	10	.....	10	I.	Normal.	Tonics; Fuller's lotion locally.					
9	D. S...	July 2, '72	F.	33	England....	Seamstress	1	Subacute.	14 days ..	21	.....	21	I.	Normal.	Rochelle salt, 3 ss. t.i.d., and Fuller's lotion locally.					
10	J. H....	July 13, '72	M.	16	Denmark ...	Baker	1	Acute	4 days ...	14	.....	14	C.	Normal.	Soda bicarb. and Dover's powder, q. 3 hours; Fuller's lotion locally.					
11	J. H....	Aug. 6, '72	M.	10	England....	None....	1	Subacute.	14 days ..	31	.....	31	I.	Normal.	Rochelle salt. Transferred to surgical division for abscess on upper and inner part of thigh.					
12	S. W...	Aug. 15, '72	F.	33	Ireland.....	Seamstress	3	Subacute.	5 days ...	18	.....	18	C.	Normal.	Rochelle salt, 3 ij. t.i.d.					
13	H. O...	Sept. 14, '72	M.	60	Ireland.....	Seaman	1	Chronic ..	11 months.	10	.....	10	I.	Normal.	Pot. iod., gr. x. t.i.d.					
14	M. C...	Sept. 28, '72	F.	40	Ireland....	Cook	Several.	Subacute.	2 weeks...	96	.....	96	I.	Normal.	Rochelle salt.					
15	E. T....	Oct. 17, '72	M.	23	Ireland.....	Laborer	2	Subacute.	10 days ..	13	.....	22	C.	Normal.	Rochelle salt, gr. xv., and colchicum t.i.d.; Fuller's lotion locally.					
16	T. O'C.	Nov. 24, '72	M.	34	Ireland.....	Driver	Several.	Subacute.	21 days ..	50	.....	50	C.	Normal.	Pot. iod., and colchicum, āā gr. v. t.i.d., and Rochelle salt, 3 ij. every morning.	....	.....	.....	.....	Aortic stenosis.
17	A. B....	Dec. 5, '72	F.	53	England ...	Domestic.....	1	Chronic ..	1 year....	76	.....	108	C.	Normal.	Pot. iod. and colchicum, āā gr. v. t.i.d., and iron; Fuller's lotion locally.					
18	G. F...	Jan. 7, '73	M.	38	Ireland.....	Clerk.....	1	Subacute.	30 days ..	18	.....	39	C.	Normal.	Tr. ferri chloridi (for anæmia).					
19	M. R...	Feb. 3, '73	F.	..	Ireland.....	Domestic.....	Several.	Chronic ..	1½ year..	21	.....	104	I.	Normal.	Pot. iod. and colchicum; Fuller's lotion locally.	.....	20	63	Pot. iod. and colch.	
20	M. H...	Feb. 6, '73	F.	23	Ireland.....	Laundress.....	1	Acute	15 days ..	22	11	33	C.	99.5	Quinine and Dover's powder, āā gr. v., t.i.d.					
21	S. H...	Feb. 7, '73	M.	27	New York..	Clerk.....	1	Chronic ..	1 year....	97	.....	97	I.	Normal.	Pot. iodide, gr. xii. t.i.d.					
22	E. E...	Feb. 14, '73	F.	38	Ireland.....	Housekeeper ...	Several.	Acute	14 days ..	20	20	31	C.	100	Tr. fer. chlor., gtt. x. t.i.d. (anæmia).					
23	T. W...	Feb. 17, '73	F.	24	England....	Dressmaker	2	Acute	4 days ...	48	12	50	C.	103	Quinine and Dover's powder, gr. v. t.i.d. Eff. iron mixture.					
24	A. B....	Feb. 17, '73	F.	24	England....	Housekeeper ...	1	Acute	7 days ...	5	.....	28	C.	Normal.	None.					
25	C. B. C.	Mar. 14, '73	M.	26	England...	Salesman.....	2	Chronic ..	28 days ..	112	.....	112	I.	Normal.	Pot. iod., gr. x. t.i.d., increased to 3 ss. t.i.d. Syr. ferri iod.; iodine locally.	.....	.....	.....	.....	Mitral insufficiency.
26	T. C....	April 4, '73	M.	30	England....	Carpenter	2	Subacute.	21 days ..	7	.....	10	C.	Normal.	Fuller's lotion locally.					
27	H. C...	April 14, '73	F.	19	New York..	Domestic.....	2	Acute	7 days ...	45	.....	58	C.	104.25	Quin., ferri, and morph. and dry cups over heart. Tr. ferri chlor.	.....	.....	.....	.....	Pleurisy, with effus. Double friction murmur; systolic at apex (pericard.).
28	J. O....	April 16, '73	M.	20	Ireland.....	Painter.....	2	Subacute.	49 days ..	92	.....	92	C.	Normal.	Quin. and ferrum and blister to chest.	.....	.....	.....	.....	Roughening at base; mitral insufficiency.
29	B. F....	April 25, '73	F.	23	Ireland.....	Seamstress	5	Acute	42 days ..	31	.....	79	C.	103.5	Pot. iod. and colch., āā gr. x. t.i.d., and dry cups, precord.	.....	11	36	Pot. iod. and colch.; blister precord.	Roughening at base.
30	G. McG.	May 31, '73	F.	21	England....	Waitress	2	Subacute.	14 days .	25	.....	25	C.	Normal.	Pot. iod. and colch., āā gr. x. t.i.d. Pot. iod., gr. xv.–xxv. t.i.d.	.....	.....	.....	.....	Aortic stenosis.
31	A. G. R.	June 2, '73	M.	25	England....	Joiner.....	1	Subacute.	35 days ..	9	.....	11	C.	Normal.	Pot. iod. and colch., āā gr. x. t.i.d.					
32	P. F....	May 24, '73	M.	39	Ireland....	Conductor.....	3	Subacute.	35 days ..	20	.....	20	C.	Normal.	Not given or none.					
33	J. M....	June 4, '73	M.	24	Ireland. ...	Laborer	1	Subacute.	60 days ..	32	.....	32	C.	Normal.	Pot. iod. and colch., āā. gr. x. t.i.d.	Headache; pustules.				
34	J. L....	June 6, '73	F.	32	Ireland.....	Seamstress	1	Chronic ..	7 months .	5	.....	5	I.	Normal.	Pot. iod. and colch., āā. gr. x. t.i.d.	Eruption.				
35	G. M...	July 2, '73	M.	29	Ireland.....	Horse-shoer	1	Acute	14 days ..	7	.....	7	C.	103.3	Extra diet and rest.					
36	E. C. D.	July 8, '73	M.	52	U. S.....	Hotel-keeper....	1	Acute ...	.....	15	6	15	Died.	102.5	Pot. iod. and colchicum.	.....	.....	.....	.....	Bright's: died from suppression of urine.
37	J. H....	July 15, '73	M.	65	Ireland.....	Mason	1	Chronic ..	1 year....	30	.....	30	I.	Normal.	Pot. iod. and colch.; hypodermic morph.					

38	J. G....	July	16, '73	M.	54	Germany ...	Physician	1	Subacute	10 days ..	17	.....	20	C.	Normal.	Pot. iod. and colchicum.					
39	J. K....	July	18, '73	M.	21	Ireland	Bartender	1	Acute	17 days ..	15	9	19	C.	102.25	Ice bags locally.					
40	H. D....	Aug.	7, '73	M.	60	Germany ...	Cabinet-maker ..	Several.	Subacute.	21 days ..	7	.....	11	C.	Normal.	Pot. iod. and colchicum.					
41	T. T....	Aug.	8, '73	M.	43	England....	Butcher	1	Chronic ..	2 years ..	23	.....	59	C.	Normal.	Pot. iod.					
42	C. C....	Aug.	9, '73	M.	30	Denmark...	Gardener.....	1	Chronic ..	21 days ..	181	.....	181	I.	Normal.	Pot. iod. and colch.; cold locally. Propylam., gtt. ij. q. 3 hours. Rochelle salt. Ferri et quin. Pot. iod. and colch. Kerosene locally. Iodine locally.					
43	J. W...	Sept.	12, '73	M.	63	Germany ...	Baker	1	Subacute.	28 days ..	71	.....	71	Died.	Normal.	Tr. cimicifuga, 3j. t.i.d.....	At autopsy found right ventricle hypertrophied; no dilatation; hypertrophy and dilatation of left ventricle; aortic insufficiency; mitral atheromatous; Bright's; atrophied kidney.	.....	.....	....	Cardiac palpitation.
44	A. W...	Oct.	2, '73	F.	55	Ireland.....	Laundress	1	Subacute.	3 months..	12	.....	12	I.	Normal.	Fer. et nux vom.					
45	E. W...	Oct.	19, '73	F.	39	Ireland.....	Domestic	1	Acute ...	5 days ...	11	.....	12	C.	Normal.	Pot. iod. and colch.					
46	J. O'G..	Oct.	20, '73	M.	29	Ireland.....	Laborer	1	Subacute.	5 months..	25	.....	26	C.	Normal.	Pot. iod. and colch.					
47	R. B...	Oct.	21, '73	F.	53	England....	Domestic	1	Subacute.	7 days ...	37	.....	37	C.	Normal.	Pot. iod. and colch.; ice locally and morphine.					
48	M. C. .	Oct.	24, '73	F.	38	Ireland.....	Laundress.....	Several.	Subacute	.....	22	.....	57	I.	Normal.	Pot. iod. and colch.; bandages and iodine locally.	Diarrhœa.....	14	21	Pot. iod. and colch.	
49	J. M. S.	Nov.	3, '73	M.	35	U. S.....	Salesman.....	1	Chronic ..	6 months..	21	....	185	I.	Normal.	Pot. iod. and colch. Pot. iod. and faradism.					
50	J. S....	Nov.	4, '73	M.	43	England....	Chemist	1	Subacute.	12 weeks..	9	.....	11	C.	Normal.	Pot. iod. and colch.; ice locally.					
51	A. V. B.	Nov.	5, '73	M.	18	New York..	Harness-maker..	1	Chronic ..	4 years...	96	.....	96	I.	Normal.	Pot. iod. and colch.; electricity and blisters locally.					
52	M. F...	Nov.	11, '73	F.	20	Ireland....	Domestic... ...	1	Subacute.	4 days ...	28	.....	37	C.	Normal.	Pot. iod. and colch. and rhubarb and magnesia.	.....	.....	.....	.....	Aortic stenosis.
53	F. G....	Nov.	16, '73	M.	50	Germany ...	Barber	1	Subacute.	.....	47	.....	83	C.	Normal.	Pot. iod. and colch.					
54	R. L....	Nov.	20, '73	M.	24	Germany ...	Brewer	1	Acute	5 days ...	4	.....	5	C.	Normal.	Pot. iod. and tr. cinch. co.					
55	J. T....	Nov.	21, '73	M.	52	France	Cook.....	1	Acute	7 days ...	26	.....	32	Died.	99.6	Pot. iod. and colch.....	Autopsy also found atheromatous aortic and mitral valve.	.....	.....	.....	Conjunctivitis; embolism left middle cerebral artery, with softening; acute meningitis.
56	J. H...	Nov.	21, '73	M.	54	Ireland.....	Teamster.....	1	Subacute.	60 days ..	57	.....	73	C.	Normal.	Pot. iod. and colch.					
57	B. S....	Nov.	27, '73	F.	26	Germany ...	None; married.	1	Acute	11 days ..	12	12	12	Died.	103.5	Pot. iod. and colch. andliq. opii. co.	....	.....	.....	.....	Autopsy: Vegetations mitral valve; base aortic atheromatous; kidneys large.
58	J. H...	Dec.	3, '73	M.	38	Germany ...	Farmer.....	1	Acute	3 days ...	9	3	10	C.	102	Pot. iod. and colch. Rochelle salt.	.....	.....	.....	.....	Friction murmur.
59	J. C. G.	Dec.	8, '73	M.	17	U. S.....	Waiter	1 (30)	Subacute.	30 days ..	19	.....	48	C.	Normal.	Pot. iod., gr. x. t.i.d.					
60	F. O'T.	Dec.	12, '73	M.	32	Ireland.....	Harness-maker .	1	Subacute.	49 days ..	42	.....	42	I.	Normal.	Pot. iod. and tr. cinch. co. Rochelle salt.					
61	C. P....	Dec.	17, '73	M.	50	England....	Painter.....	Several.	Subacute.	30 days ..	47	.....	47	I.	Normal.	Pot. iod. and colch. and blisters locally.					
62	J. McC.	Dec.	23, '73	M.	19	New York..	Teamster.....	1	Subacute.	10 days ..	22	.....	23	C.	Normal.	Pot. iod., gr. xx. t.i.d.....	.....	.....	.....	.....	Mitral insufficiency.
63	P. J. G.	Dec.	24, '73	M.	30	Ireland.....	Tailor	Several.	Chronic ..	1 year....	68	.....	68	I.	Normal.	Pot. iod., gr. xv. t.i.d.					
64	L. St. G.	Dec.	29, '73	F.	30	France . ..	Nurse....	1	Subacute.	21 days ..	22	.....	22	C.	Normal.	Pot. iod. and colch.					
65	W. S...	Dec.	30, '73	M.	50	Germany ...	Laborer	1	Subacute.	60 days ..	29	.....	29	C.	Normal.	Pot. iod., gr. xxx. t.i.d.; blister locally.	.....	.....	.....	.....	Iritis.
66	J. C....	Jan.	8, '74	F.	31	Ireland.....	Seamstress	1	Acute	5 days ...	50	13	65	C.	.....	Rochelle salt and morph. noct. Pot. iod., gr. xv. t.i.d.	Diarrhœa (Rochelle); dizziness (pot. iod.).				
67	M. M...	Jan.	8, '74	F.	32	New York..	None; married.	2	Subacute.	35 days ..	69	.....	69	C.	Normal	Pot. iod., gr. x., and quin., gr. iij. t.i.d. Ferr. et quin. Colchicum. Ferr. et quin. et pot. bitart.					
68	P. S....	Jan.	12, '74	M.	48	Ireland.....	Cooper	2	Subacute.	42 days	75	.....	99	C.	Normal.	Pot. iod.					
69	O. B....	Jan.	13, '74	M.	42	New York..	Harness-maker..	Several.	Subacute.	4 days ...	23	.....	23	I.	Normal.	Pot. iod. and colch.....	Diarhœa, nausea, and vomiting.				
70	J. F....	Jan.	19, '74	M.	35	U. S.....	Driver	1	Acute	4 days ...	8	.....	16	C.	Normal.	Locally lotion plumbi et opii and ung. zinci et bellad.					
71	E. B....	Jan.	27, '74	F.	18	Denmark...	Domestic.....	2	Acute	5 days ...	38	19	48	C.	103.8	Rochelle salt and morphine noct., and quin., gr. v. t.i.d. Pot. iod.; Fuller's lotion locally.					
72	S. H. .	Jan.	30, '74	F.	25	Ireland.....	Saleswoman	2	Acute	3 days ...	95	3	95	C.	101.5	Rochelle salt and anodynes noct., and Fuller's lotion locally. Pot. iod. Pot. iod. and colch. Ferri et quin. citr.	.....	.....	.....	.....	Developed while in hosp. mitral insufficiency.
73	M. E...	Feb.	6, '74	F.	20	Germany ...	Domestic.....	2	Acute	2 days ...	18	.....	18	C.	Normal.	Quinine.					
74	A. C. D.	Feb.	28, '74	M.	31	New York .	Book-keeper....	1	Subacute.	7 days ...	13	.....	14	C.	Normal.	Rochelle salt, 3j. q. 3 hours. Pot. iod. and colch.					
75	E. K...	March	5, '74	M.	25	New York..	Nurseryman....	2	Acute	4 days ...	11	.....	11	C.	Normal.	Rochelle salt.					
76	R. E...	Mar.	10, '74	M.	21	Ireland.....	Butcher	1	Subacute.	28 days ..	18	.....	18	C.	Normal.	Pot. iod. and colch.					
77	L. McK.	Mar.	23, '74	M.	55	Ireland.....	Laborer	2	Subacute.	7 days ...	28	.....	41	C.	Normal.	Pot. iod. and colch.					
78	V. T....	Mar.	31, '74	F.	25	France	Seamstress	Several.	Acute	7 days ...	.....	.....	3	C.	Normal.	None.					

Record of Histories of Cases—*Continued.*

Number of case.	Name.	Date of admission.	Sex.	Age.	Nativity.	Occupation.	Number of the attack.	Variety of the attack.	Duration: Of joint symptoms before entering hospital.	Duration: Of joint symptoms after entering hospital.	Duration: Of pyrexia after entering hospital.	Duration: Of stay in hospital.	Condition when discharged.	Maximum temperature.	Treatment.	Disagreeable effects of remedies employed.	Relapses: Time after cessation of joint symptoms.	Relapses: Duration.	Relapses: Treatment.	Complications.
									Days.	Days.	Days.	Days.					Days.	Days.		
79	M. O'C.	April 2, '74	F.	22	Ireland	Domestic.....	2	Acute	2 days ...	28	10	28	C.	102.5	Rochelle salt and Tully's powder noct., p. r. n.; cotton and oil silk to affected joints. Pot. iod. and colch. Vinum colch. seminis.	Nausea and vomiting (pot. iod. and colch.)	.....	.....	.....	Harsh systolic; mitral insufficiency; later developed aortic stenosis.
80	H. H ..	April 6, '74	M.	20	Germany ...	Butcher	1	Acute	6 days ...	5	2	19	C.	102	Rochelle salt, 3j. q. 2 hours, and Tully's powder noct.					
81	C. S....	April 6, '74	M.	27	Germany ...	Laborer	1	Acute ...	14 days ..	26	6	26	C.	101	Rochelle salt and Tully's powder noct. Pot. iod. and colch., āā gr. v. t.i.d.					
82	M. S	April 23, '74	F.	25	Ireland.....	Domestic	1	Acute	2 days ...	20	6	21	C.	102.75	Pot. iod. and colch.....	.....	.....	.....	.....	Aortic stenosis.
83	M. M...	April 24, '74	F.	43	Ireland.....	Domestic	2	Acute	14 days ..	80	6	80	I.	103	Pot. iod. and colch.; cotton and oil-silk locally. Rochelle salt and blister locally.					
84	W. J. S.	May 3, '74	M.	34	Ireland.....	Oysterman	2	Subacute.	14 days ..	8	.....	8	C.	Normal.	Nothing.					
85	B. M...	May 11, '74	M.	30	Ireland.....	Coachman	1	Subacute.	14 days ..	43	.....	43	C.	Normal.	Pot. iod. and colch. and iron and quin.					
86	J. S....	May 12, '74	M.	49	Ireland.....	Clerk.....	2	Subacute.	3 months .	43	.....	43	I.	Normal.	Pot. iod. and colchicum; blisters locally.					
87	J. K....	May 13, '74	M.	45	Ireland.....	Laborer.	1	Acute ..	.....	7	.....	7	C.	Normal.	Nothing.					
88	A. E. H.	June 6, '74	F.	26	New York..	None; married.	1	Acute	7 days ...	23	7	23	C.	103.5	Rochelle salt, q. 2 hours, and Tully's powder; Fuller's lotion locally.					
89	G. S...	June 16, '74	M.	24	Ireland.....	Conductor	2	Acute	35 days ..	11	3	11	C.	.....	Pot. iod., gr. xx., and colch., gtt. xv. t.i.d.					
90	A. S....	June 18, '74	M.	41	New York..	Clerk.....	1	Subacute.	10 days ..	15	.....	15	I.	Normal.	Pot. iod., gr. xv. t.i.d.; blisters locally.					
91	H. K...	June 23, '74	M.	19	Germany ...	Clerk.....	1	Acute	5 days ...	13	11	18	C.	103.5	Rochelle salt, 3jss. q. 2 hours, and pot. iod.					
92	C. T....	June 30, '74	M.	29	Ireland.....	Gasfitter.....	1	Subacute.	28 days ..	31	.....	118	C.	Normal.	Pot. iod., gr. xx. t.i.d.					
93	J. R....	July 2, '74	M.	50	Ireland.....	Laborer	2	Acute	5 days ...	5	.....	25 .	C.	Normal.	Pot. iod. and colch.; and blister. Rochelle salt.					
94	H. D...	July 6, '74	M.	25	Germany ...	Butcher	1	Subacute.	21 days ..	27	.....	27	I.	Normal.	Pot. iod.					
95	J. K....	July 21, '74	F.	35	Ireland.....	Cook.....	1	Subacute.	4 months .	38	.....	38	I.	Normal.	Pot. iodine and iodine locally.					
96	A. McG.	July 26, '74	F.	48	Ireland.....	Housekeeper ...	1	Subacute.	28 days ..	29	.....	29	I.	Normal.	Rochelle salt, 3j. q. 2 hours.					
97	D. I....	July 29, '74	F.	18	Germany ...	Domestic	1	Subacute.	28 days ..	8	.....	8	C.	Normal.	Pot. iod.					
98	G. S...	Sept. 1, '74	M.	21	Germany ...	Grocer's clerk...	1	Acute	10 days ..	8	13	33	C.	103.25	Rochelle salt, 3j. q. 2 hours; starch diet, and hot douche locally.	Diarrhœa.....	18	5	Rochelle salt.	
99	C. S....	Sept. 1, '74	F.	23	Germany ...	Domestic.....	1	Acute	5 days ...	25	7	25	C.	102.5	Rochelle salt, 3j. q. 2 hours, and starch diet.					
100	M. R...	Sept. 14, '74	F.	36	Ireland.....	Laundress	2	Acute	14 days ..	45	5	45	I.	100	Quinine, gr. iij. t.i.d. and hot douche and friction locally.					
101	J. S....	Oct. 7, '74	F.	32	Germany ...	Teacher	1	Acute	28 days...	28	9	28	I.	100.25	Rochelle salt, 3j. t.i.d.					
102	A. W...	Oct. 8, '74	M.	24	Sweden	Seaman	1	Subacute.	4 months .	20	.....	20	I.	Normal.	Pot. iod., gr. x. t.i.d.					
103	F. C....	Oct. 10, '74	F.	32	New York..	Dressmaker	1	Subacute.	6 weeks ..	33	.....	33	I.	Normal.	Pot. iod., gr. xv., and hydr. biniod., gr. $^1/_{30}$ t.i.d. Rochelle salt.					
104	M. R...	Oct. 29, '74	F.	53	England....	Laundress.....	1	Chronic ..	5 years ...	106	.....	106	I.	Normal.	Pot. iod. and colch. āā gr. x. Rochelle salt, 3j. t.i.d.; hot vapor-bath daily.					
105	F. A....	Nov. 29, '74	F.	43	Ireland.....	Washing	1	Acute	5 weeks ..	92	12	92	C.	101.75	Rochelle salt. Pot. iod. and colch. Rochelle salt.					
106	F. B....	Dec. 2, '74	M.	29	New York..	Stonecutter.....	1	Chronic ..	8 months .	82	.....	82	I.	Normal.	Rochelle salt and ferr. et quinine; hot vapor-bath daily.					
107	E. B....	Dec. 2, '74	F.	58	Ireland.....	Seamstress	2	Acute	7 days ...	88	.....	88	I.	102	Rochelle salt, 3j. t.i.d. Pot. iod. and colch. Rochelle salt.	.....	.....	.....	.....	Mitral murmur.
108	T. O'C.	Dec. 4, '74	M.	35	Ireland.....	Teamster.....	Several.	Subacute.	14 days ..	35	.....	35	I.	Normal	Rochelle salt, 3j. t.i.d.					
109	M. C..	Dec 14, '74	F.	47	Ireland.....	Seamstress	1	Subacute.	30 days ..	36	.....	26	I.	Normal.	Rochelle salt, 3j. t.i.d., and iron and quinine.					
110	F. M...	Dec. 14, '74	M.	29	France	Carpenter	1	Acute	14 days ..	11	.....	11	I.	99.25	Rochelle salt, 3j. t.i.d.					
111	R. C....	Dec. 14, '74	F.	24	Ireland.....	Domestic.....	2	Subacute.	7 weeks ..	7	.....	7	I.	Normal.	Rochelle salt, 3j. t.i.d.					
112	W. E...	Dec. 15, '74	M.	30	Wales	Slater	1	Subacute.	9 months.	32	.....	32	I.	99.5	Rochelle salt, 3j. t.i.d.					
113	C. J. S..	Dec. 24, '74	F.	35	New Jersey.	Seamstress	Several.	Subacute.	28 days ..	107	.....	107	I.	Normal.	Rochelle salt and morphine noct. Pot. iod. Rochelle salt; iodine locally. Atropine.					
114	H. F...	Dec. 28, '74	M.	52	Germany ...	Baker.....	1	Acute	14 days ..	28	.....	37	C.	99.5	Rochelle salt. Pot. iod. and colch.					

115	J. B....	Jan.	4, '75	M.	19	New York..	Laborer	1	Acute	21 days ..	9	.....	24	C.	Normal.	Rochelle salt. Pot. iod. and colch..	.....	.....	.....	.....	Aortic stenosis; mitral insufficiency.
116	C. R....	Jan.	4, '75	M.	45	Germany ...	Carpenter	Several.	Subacute .	28 days ..	20	.....	20	I.	Normal.	Rochelle salt. Pot. iod., gr. x., and colch., gr. xx. t.i.d.					
117	M. H....	Jan.	4, '75	M.	31	New York..	Sailor	Several.	Chronic ..	7 months..	[illegible]	.....	25	I.	Normal.	Rochelle salt. Pot. iod., gr. x., and colch., gr. xx. t.i.d., and hot vapor-bath daily.					
118	J. A....	Jan.	12, '75	M.	52	Scotland....	Carpenter	1	Chronic ..	9 months..	4	.....	4	I.	Normal.	Iron and quinine.					
119	J. A....	Jan.	22, '75	M.	32	Ireland.....	Carpenter	1	Chronic ..	7 months..	14	.....	14	I.	Normal.	Iron and quinine.					
120	M. C...	Jan.	27, '75	F.	27	Ireland.....	Domestic.....	1	Acute	5 days ...	11	11	11	Died.	105	Rochelle salt, ʒj. t.i.d.	.....	.....	.....	.....	Pericarditis; endocarditis; double pneumonia.
121	C. D...	Feb.	8, '75	M.	17	New York..	Expressman	1	Acute	10 days ..	15	.....	38	C.	101	Rochelle salt...	.....	10	7	Rochelle salt.	
122	H. K...	Mar.	4, '75	M.	18	Germany ...	Grocer	1	Acute	6 days ...	9	5	18	C.	103.75	Atropia, $^1/_{120}$ gr. hypoder., and milk diet.					
123	E. R....	Mar.	11, '75	F.	25	Ireland.....	Domestic.....	1	Subacute .	6 weeks ..	4	.....	4	I.	Normal.	Quinine and iron.					
124	W. DeF.	Mar.	20, '75	M.	22	New York..	Laborer	1	Acute	6 days ...	4	11	46	C.	107.2	Atropia, $^1/_{100}$ gr. hypoder., t.i.d., and pulv. Doveri, gr. x. noct. Quin. sulph., gr. xviij., and cold pack for hyperpyrexia.	....	11	1	Atropine.....	Hyperpyrexia; pericarditis; mitral insufficiency.
125	A. E...	Mar.	27, '75	F.	33	Ireland.....	Cook	1	Acute	14 days ..	10	5	12	C.	101	Rochelle salt.					
126	M. H...	April	9, '75	F.	30	Ireland.....	Cook	1	Acute	14 days ..	9	3	19	C.	101.25	Rochelle salt.					
127	H. M...	April	24, '75	M.	25	Germany ...	Laborer	1	Acute	6 days ...	22	12	57	C.	103	Rochelle salt.....	.....	30	5	Rochelle salt.....	Mitral insufficiency.
128	M. B...	April	26, '75	F.	35	Ireland.....	Cook	1	Acute	16 days ..	8	6	40	C.	102.5	Atropine, gr. $^1/_{120}$ hypoder. t.i.d....	{ First relapse..... { Second relapse.....	4 12	7 } 9 }	Atropine.....	Aortic and mitral mur.
129	M. B...	April	29, '75	F.	32	Ireland.....	Cook	2	Acute	14 days ..	18	23	38	C.	102	Spir. æth. nitr. and digitalis and pot. acetat and belladonna and quinine.	....	17	2	.....	Pericarditis.
130	E. R...	May	13, '75	F.	47	Scotland....	Cook	5	Acute	14 days ..	45	21	69	C.	102	Atropine hypoder., $^1/_{120}$ gr. t.i.d. Rochelle salt. Quinine, gr. vi., and opium, gr. ss. t.i.d.					
131	E. O...	May	15, '75	M.	38	Germany ...	Merchant	1	Acute	18 days ..	5	.. ...	10	C.	Normal.	Atropine hypoder., gr. $^1/_{120}$ t.i.d.					
132	F. D...	May	15, '75	F.	28	France.....	Domestic.....	1	Acute	8 days ...	46	15	48	C.	103.5	Rochelle salt.....	.....	.....	.....	.....	Aortic murmur; mitral insufficiency.
133	G. L....	May	24, '75	M.	30	Ireland.....	Laborer	1	Subacute .	5 weeks ..	36	.....	42	C.	Normal.	Rochelle salt; iodine locally.					
134	M. C...	June	11, '75	F.	60	Ireland.....	Seamstress	1	Chronic ..	6 months..	22	... ..	22	I.	Normal.	Rochelle salt and morphia.					
135	F. C....	June	15, '75	M.	36	Ireland.....	Laborer	3	Subacute .	3 weeks ..	38	.....	38	C.	Normal.	Rochelle salt; iodine locally.					
136	J. J....	June	19, '75	F.	22	Scotland....	Domestic	2	Subacute .	5 weeks ..	67	.....	104	C.	Normal.	Rochelle salt, ʒj. t.i.d., and pot. iod. Atropine, $^1/_{120}$ gr. hypoder. and strych. and quin.	Eruption.				
137	M. M..	June	21, '75	F.	20	Scotland....	Domestic.....	1	Acute	5 days ...	9	6	21	C.	102.75	Atropine, gr. $^1/_{120}$ hypoder, t.i.d...	.....	4	7	Atropine.....	Mitral murmur.
138	M. L...	June	29, '75	F.	26	Ireland.....	Nurse	2	Subacute .	28 days ..	72	.....	89	C.	Normal.	Atropine, gr. $^1/_{120}$ q. 4 hours hypoder. and iron and quinine.	.....	.....	.....	.....	Purpura rheum.
139	J. F....	July	2, '75	M.	35	Ireland.....	Laborer	2	Acute ..	4 days ...	11	7	12	C.	104	Atropine, gr. $^1/_{120}$ q. 4 hours hypoder. and Dover's powder noct.					
140	W. D..	July	17, '75	M.	35	Ireland.....	Laborer	1	Subacute .	8 weeks ..	14	.....	14	C.	99.25	Rochelle salt.....	Vomiting.				
141	E. C. Z.	Aug.	11, '75	M.	30	Germany...	Baker	1	Acute.....	8 days....	14	.....	33	C.	Normal.	Rochelle salt.					
142	U. H. P.	Oct.	23, '75	M.	46	U. S.....	Railroad agent..	7	Subacute .	14 days...	38	.....	38	C.	Normal.	Pot. iod., gr. xx. t.i.d.					
143	W. F...	Oct.	27, '75	M.	23	New York..	Bartender	2	Acute	9 days....	81	7	84	C.	103	Pot. iod., gr. x. t.i.d., and Rochelle salt, ʒ ij. t.i.d., and ac. sulph. dil.	.....	.....	.....	.. ..	Subacute pleurisy; murmur at apex.
144	R. K...	Dec.	9, 75	F.	20	England ...	Domestic.....	2	Acute	2 days ...	53	9	84	C.	103.5	Atropine, gr. $^1/_{120}$ hypoder. t.i.d., and oil-silk locally.	.....	.....	.....	....	Mitral insufficiency; also developed while in hospital pericarditis.
145	P. Q...	Dec.	20, '75	M.	26	Ireland.....	Salesman.....	4	Acute	7 days ...	29	.....	29	C.	102.8	Pot. iod., gr. x. t.i.d. and ac. sulph. dil. and Rochelle salt.	....	.....	.....	.....	Exocard.; friction sound.
146	T. S....	Dec.	27, '75	M.	29	Ireland.....	Waiter	2	Acute	3 days ...	36	24	47	C.	104	Ac. sulph. dil., gtt. x. t.i.d.	.....	.....	.....	.....	Pericarditis developed while in hosp.; eruption.
147	E. O'B.	Feb.	4, '76	F.	29	Ireland. ...	Domestic.....	2	Acute	7 days ...	9	34	47	C.	104.75	Pulv. Doveri, gr. v,, Rochelle salt, gr. x., ammon. mur., gr. x., q. 3 hours.	....	31	4	Rochelle salt.....	Pneumonia and pericarditis while in hospital.
148	J. U...	Mar.	2, '76	M.	39	Germany...	Blacksmith	2	Subacute .	6 months..	79	.....	86	C.	Normal.	Rochelle salt and mercury; iodine locally.					
149	J. McC.	Mar.	6, '76	M.	38	Ireland. .	Butcher	?	Subacute .	3 months..	17	.....	17	C.	Normal.	Rochelle salt, ʒj. t.i.d.					
150	O. S ..	Mar.	10, '76	M.	53	New York..	Clothing-cutter..	1	Chronic ..	4 months..	7	.....	7	U.	Normal.	Pot. iod. and colch., ää gr. viij. t.i.d.	Vomiting	.....	.....	....	Sup. of urine; eruption.
151	H. P...	April	20, '76	M.	48	New York..	Agent	Several.	Chronic ..	18 months.	150	.....	150	I.	Normal.	Ergot, gr. xv. and tr. bellad., ℥ v., and pot. iod.; mercury inunctions and iodine locally. Conium.					
152	M. S...	April	28, '76	F.	22	England ...	Domestic.....	1	Acute	2 weeks .	17	11	22	C.	103.25	Salicylic acid.....	....	... ..	.....	....	Aortic stenosis.
153	V. M...	May	9, '76	F.	47	France.....	Seamstress	2	Subacute .	7 days....	48	.....	48	C.	Normal.	Salicylic acid and pot. iod., gr. x. t.i.d.					
154	S. R ...	May	15, '76	M.	32	England ...	Waiter	1	Acute	7 days....	7	9	14	C.	102.75	Ergot, gr. xv. q. 2 hours and pulv. Doveri; cotton and oil-silk locally. Salicylic acid, gr. v. t.i.d.					
155	E. P ...	May	21, '76	F.	31	England ...	Housekeeper ...	1	Subacute .	1 year....	36	.....	95	C.	Normal.	Salicylic acid and mercury and morphia locally.					
156	W. M..	May	22, '76	M.	23	New York..	Hostler.....	2	Acute . ..	7 days ...	72	.....	72	I.	101.5	Mixed treatment. Rochelle salt. Iron and soda.					
157	W. P...	June	21, '76	M.	19	U. S.....	Butcher	1	Subacute .	4 months .	9	.... .	9	C.	Normal.	Rochelle salt, ʒ ij. t.i.d.; iodine locally.					
158	A. B...	July	11, '76	M.	52	England ...	Carpenter	2	Chronic ..	1 year....	8	.....	8	I.	Normal.	Pot. acetat., ʒ ss., and tr. ferri chlor. gtt. xv. t.i.d.	....	.....	.....	....	Œdema of feet and legs.

RECORD OF HISTORIES OF CASES—*Continued.*

Number of case.	Name.	Date of admission.	Sex.	Age.	Nativity.	Occupation.	Number of the attack.	Variety of the attack.	Duration: Of joint symptoms before entering hospital.	Duration: Of joint symptoms after entering hospital.	Duration: Of pyrexia after entering hospital.	Duration: Of stay in hospital.	Condition when discharged.	Maximum temperature.	Treatment.	Disagreeable effects of remedies employed.	Relapses: Time after cessation of joint symptoms	Relapses: Duration.	Relapses: Treatment.	Complications.
									Days.	Days.	Days.	Days.					Days.	Days.		
159	J. C....	July 7, '76	M.	30	New York..	Boatman	Several.	Acute	5 weeks ..	26	.....	26	I.	100	Digitalis and iron; zinc and opium locally.					
160	M. R...	July 13, '76	F.	40	Ireland.....	Cook	1	Subacute.	6 months .	28	.....	39	C.	99.25	Quinine and iron; iodine locally. Rochelle salt.					
161	F. S....	July 18, '76	M.	59	Germany...	Merchant.....	Several.	Acute	21 days ..	15	5	15	C.	103.5	Rochelle salt, 3 j., and quinine sulph., gr. v. t.i.d.; Fuller's lotion locally. Pot. carb. and opium.					
162	H. M...	July 18, '76	M.	72	Germany...	Laborer	2	Acute	4 days ...	8	6	8	C.	100.75	Salicylic acid.					
163	B. D...	July 18, '76	M.	18	New York..	Railroad man. .	4	Acute	5 days ...	67	.....	77	C.	100.5	Rochelle salt, 3 j., and quinine, gr. x. t.i.d.; poultice locally. Pot. carb. Pot. iod. and cimicifuga and colchicum.					
164	F. D...	July 20, '76	M.	44	Ireland. ...	Laborer	1	Chronic ..	1 year....	9	.....	9	I.	100.5	Pot. iod., gr. x. t.i.d.....	.....	.....	.....	.....	Aortic stenosis.
165	T. M...	July 31, '76	M.	33	Germany...	Blacksmith	1	Acute	14 days ..	4	.....	4	I.	99.75	Rochelle salt.					
166	C. P....	Aug. 22, '76	F.	28	France	Laundress.....	1	Acute	7 days ...	42	7	42	C.	104	Salicylic acid, pot. iod., pot. bicarb.; Fuller's lotion locally.	.....	.....	.....	.....	Aortic stenosis; mitral insufficiency.
167	J. R. H.	Nov. 2, '76	M.	42	Ireland.....	Boiler-maker....	Several.	Chronic ..	2 years...	90	.....	90	I.	Normal.	Rochelle salt, pot. iod. and colch.; iodine locally.					
168	C. B....	Nov. 13, '76	M.	45	New York..	Clerk.....	Several.	Subacute.	4 months .	38	.....	40	C.	Normal.	Rochelle salt; iodine locally. Pot. iod. and aconite and opium.					
169	J. G....	Dec. 5, '76	M.	23	Germany...	Brewer.....	1	Acute	3 days ...	3	4	11	C.	101.75	Salicylic acid; Fuller's lotion locally.	.....	.....	.....	.....	Murmur at apex.
170	J. E....	Dec. 19, '76	M.	22	Germany...	Barber	1	Acute	5 days ...	14	20	41	C.	103.6	Salicylic acid.....	.....	.....	.....	.....	Systolic at apex.
171	P. M...	Jan. 8, '77	M.	35	Ireland.....	Clerk..... ...	3	Subacute.	21 days ..	19	.....	23	C.	Normal.	Pot. acetat., gr. x., et colch., ♏ viij.; iodine locally.	.....	.....	.....	.....	
172	M. C....	Jan. 30, '77	F.	27	Norway	Domestic	1	Subacute.	60 days ..	5	.....	6	C.	Normal.	Iron and quinine; electricity locally.	.....	.....	.....	.....	Aortic stenosis.
173	C. F....	Feb. 16, '77	M.	30	Germany...	Barber	Several.	Subacute.	3 months .	34	.....	34	C.	Normal.	Pot. iod., gr. x. t.i.d.....	.....	.....	.....	.....	Pleurisy.
174	M. S...	Mar. 12, '77	M.	28	Germany...	Painter.....	Several.	Subacute.	7 days ...	7	.....	15	I.	Normal	Sodæ salicylate, gr. xx. q. 3 hours.	.....	2	1	Sodæ salicylate...	Aortic insufficieney.
175	M. B...	April 2, '77	F.	48	Ireland.....	Domestic.....	1	Subacute.	6 weeks ..	19	.....	19	I.	Normal.	Pot. iod. and iron and quinine.					
176	E. T....	April 3, '77	F.	40	Ireland.....	Domestic.....	1	Acute	10 days ..	4	2	13	C.	100.5	Salicylic acid.					
177	E. B...	April 25, '77	M.	29	Ireland.....	Laborer	1	Acute	8 days ...	4	.....	33	C.	102	Salicylic acid.....	First relapse ... . Second relapse	2 8	4 15	.....	Double murmur at base; mitral insufficiency; pericarditis.
178	C. B....	May 5, '77	F.	35	Ireland.....	Domestic.....	2	Acute	35 days ..	139	45	139	I.	102.25	Salicylic acid and Rochelle salt; douche and iodine locally.	Vomiting (sal. acid) ...	.....	.....	.....	Conjunctivitis; pneumonia; mitral murmur developed in hospital.
179	C. L....	May 12, '77	M.	46	Germany...	Driver.....	1	Chronic ..	9 months .	47	.....	51	I.	Normal.	Mixed treatment; blisters locally.					
180	M. I....	May 22, '77	F.	19	U. S.....	Cook.....	1	Acute	6 days ...	4	4	13	C.	102	Salicylic acid.....	Vertigo. 1st relapse.. 2d relapse ..	4 2	1 1	Salicylic acid ...	Mitral insufficiency.
181	R. R...	May 30, '77	F.	40	New York..	Book agent.....	Several.	Acute	28 days ..	35	7	35	I.	101	Iron and nux vom.; iodine locally.	.....	.....	.....	.....	Angina; aortic stenosis; mitral insufficiency.
182	M. H...	June 2, '77	M.	42	Germany...	Seaman	2	Subacute.	3 months .	31	2	31	I.	101	Salicylic acid; iodine locally	.....	.....	.....	.....	Aortic stenosis.
183	R. H....	June 2, '77	M.	15	New York..	None.....	1	Acute	10 days ..	3	.....	31	C.	Normal.	Salicylic acid	.....	5	11	Salicylic acid.....	Aortic stenosis.
184	J. H....	June 12, '77	M.	20	Ireland.....	Laborer	?	Acute	8 days ...	12	12	17	C.	103	Salicylic acid and Rochelle salt	.....	.....	.....	.....	Aortic stenosis.
185	M. M..	June 16, '77	F.	24	Ireland.....	None.....	Several.	Acute	4 days ...	8	9	31	C.	104	Salicylic acid.					
186	J. C....	June 20, '77	F.	40	England ...	Seamstress	3	Acute	28 days ..	6	6	55	C.	102.4	Salicylic acid	Vomiting	1	10	Salicylic acid.	
187	C. W. B.	June 20, '77	M.	77	New York..	Grocer	3	Acute	5 months .	10	4	14	C.	101.25	Salicylic acid.					
188	J. C....	Sept. 29, '77	F.	40	England ...	Seamstress	4	Subacute.	.....	30	.....	34	C.	Normal.	Salicylic acid and Rochelle salt.					
189	M. M..	Nov. 14, '77	F.	15	New York..	None.....	1	Acute	1 month ..	4	7	10	C.	100.5	Salicylic acid	Vomiting	.....	.....	.....	Aortic stenosis.
190	M. E...	Nov. 17, '77	F.	37	England ...	None.....	2	Acute ...	7 weeks ..	4	3	13	C.	99.25	Salicylic acid	Vomiting	3	4	Sal. acid and pot. iod. and colch...	Aortic and mitral murmur.
191	H. R...	Nov. 21, '77	M.	16	England ...	None	2	Acute	3 days ...	9	.....	28	C.	Normal.	Pot. iod. and colchicum.....	Headache	.....	.....	.....	Aortic stenosis and insuf.
192	P. B...	Dec. 1, '77	M.	36	France	Watchman.....	3	Subacute.	2 days ...	60	.....	81	C.	Normal.	Pot. iod. and colch.; iodine locally.	....	.....	.....	.....	Conjunctivitis and iritis.
193	A. McG.	Dec. 22, '77	F.	30	Ireland.....	Domestic.....	1	Subacute.	3 months .	118	.....	118	I.	Normal.	Iron and quinine; iodine, blisters, and electricity locally.					
194	E. F...	Dec. 26, '77	F.	27	Ireland.....	None...	3	Acute	14 days ..	3	2	17	C.	100.5	Salicylic acid	Vomiting. 1st relapse 2d relapse.	3 6	1 2	Salicylic acid, Salicylic acid.	
195	J. C....	Dec. 27, '77	M.	34	Ireland.....	Driver	2	Subacute.	6 weeks ..	46	.....	60	C.	Normal.	Pot. iod. and colch., ♎♎ gr. xxij. t.i.d.					
196	B. Z....	Jan. 14, '78	M.	24	Germany...	Shoemaker	Several.	Subacute.	14 days ..	6	.....	6	I.	Normal.	Pot. iod. and colchicum,					
197	M. R....	Jan. 15, '78	F.	40	Ireland.....	Cook.....	2	Subacute.	35 days ..	25	.....	29	C.	Normal.	Pot. iod. and colchicum, ♎♎ gr. xv..	Vomiting.				
198	J. McM.	Jan. 16, '78	M.	35	Ireland.....	Stone-cutter	2	Chronic .	3 years...	47	.....	47	I.	Normal.	Pot. iod. and colchicum. ♎♎ gr. xxij.					
199	N. M...	Jan. 17, '78	F.	19	Ireland. ...	Domestic	2	Acute	14 days ..	5	2	37	C.	99.4	Salicylic acid in solution and in capsules afterward.	Vomiting (in solution; none when in capsules).	5	3	Salicylic acid. ...	Pericarditis; aortic stenosis; mitral insufficiency and stenosis.

(*To be continued.*)

ON CONIUM IN MALARIAL DISEASES.

By RICHARD C. NEWTON, M.D.,

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No physician whose practice lies in a malarious locality can fail to take interest in the papers of Drs. McDaniel,[1] Webb,[2] and Minor,[3] recently published in the *Medical News*, relative to the safety and efficacy of quinine in hemorrhagic malarial fever. Dr. McDaniel makes, as it seems to me, an admission very damaging to his theory in his first paper,[4] viz., that he only resorted to the hypodermic use of quinine once in his cases, and is disposed to give the method a further trial, and this alone would seem to give color to Dr. Webb's belief, that the methods of administering quinine, made use of by its detractors, rather than the drug itself, are to be blamed.

In Reynolds' "Practice"[5] it says: "The late Dr. David Blair, Surgeon-General of British Guiana, thus expresses himself on the question of the safety of quinine: 'It has been prescribed by me to patients of both sexes and all ages; and where ascertainable, almost invariably to cinchonism, during thirteen years, and probably to the extent of several thousand ounces of the sulphate, and during that time I have seen no danger from its effects, with the exception of three or four cases of imputed abortion.'" Also on the same page Dr. Davy says, "that in the remittent fevers of the West Indies, during the first quarter, after the practice was introduced of giving quinine in full doses to cinchonism, out of 165 cases only 2 proved fatal; and the record of the post-mortem examination in the two fatal cases shows that they were rather instances of latent phlegmasiæ, than of fever of the true remittent type." Stronger testimony than this it would be hard to find, although references might be added indefinitely. It is not reasonable to suppose that a number of hemorrhagic cases did not occur in the practice of either of these gentlemen.

"A review of the prominent modes of treatment of remittent fever by the most eminent of British army surgeons has led Sir Ranald Martin to make the following general remark,[6] namely, that a disease so varying in its nature, so general and complicated in its influence on the system, is not to be justly treated by one remedy. Bark and calomel, each a remedy of great power, will nevertheless not succeed in the cure of fever if used exclusively. And so it is with the most powerful of all means, blood-letting. Each remedy must, therefore, have its proper place in the treatment."

The wisdom of Sir R. Martin's general remark is too apparent to need discussion. In what disease does an accomplished therapeutist rely upon one drug or one system of medication?

That quinine will infallibly cure any form of malarial fever, either mild or pernicious, no one should assert; but that its judicious exhibition is fraught with danger or increases the death-rate, as Dr. McDaniel seems to believe,[7] is fortunately far from being proved.

In chronic malarial toxæmia especially, other drugs than quinine are needed, and are and always have been extensively used. Any other alleged adjuvant to the invaluable alkaloid merits a fair trial, because it may increase our means of battling with a miasm, which "has been estimated to cause one-half the mortality of the human race."[8]

During the past nine months 269 cases of malarial diseases have occurred among the officers and enlisted men of this garrison, besides a large number among the citizens, and the women and children in and near the post. Many of these cases have been reappearances of the poison in the same person. Not a single case of uncomplicated malarial fever has proved fatal. And the writer believes that it is his good fortune to be in a position to recommend to the profession a drug of considerable value in the treatment of malarial poisoning, that is not, so far as I know, generally so used. The prominent medical journals for the past six years do not, to my knowledge, contain any reference to the use of conium in malarial disease. Nor do the text-books at my command have much to say about this drug, and nothing about its value as an antiperiodic. Conium seems to have fallen into disuse, and perhaps it is one of the good old drugs that deserves to be revived. Dr. E. C. Seguin seems to esteem it, and to give it in doses considerably larger than those laid down in the text-books. There seems to be no doubt that the drug has a powerful action on the ganglionic system of nerves.

Dr. Stillé tells us[1] that conium was strongly recommended by Fothergill in neuralgic and rheumatic affections, especially the former, and that it has been successfully used in insanity. It used to have a reputation as a cancer remedy, etc. At all events, it has allayed pain and has acted as a tonic.[2] Its uncertainty of strength is everywhere spoken of, and this has, no doubt, helped to bring the drug into discredit. It seems probable, however, that with the greatly improved pharmacy of late years uniform and reliable preparations of conium, or its alkaloid, conia, can be always obtained.

Dr. Tilt[3] asserts that "in agues the ganglionic system is the prime motor," and "the central ganglia feel the first shock of the cholera poison, when, during a severe epidemic, a man walking about in good health, suddenly feels nausea, drops down, and dies. Pernicious intermittent fever poison has often acted in a similar way."

The epigastric pain in malarial affections which Dr. Holt says[4] was pointed out to him by Dr. J. H. Ripley, I have often noticed in patients of all ages. Dr. Webb[5] attributes the hæmaturia in hemorrhagic malarial fever to vaso-motor disturbance. The inference is allowable that the epigastric pain is attributable to trouble with the epigastric ganglia of the sympathetic nervous system. It hardly seems necessary to multiply references;[6] we may take it for granted that, if the ganglionic system is not the prime motor in agues, it is very seriously disturbed, and that medication should be directed toward regulating the functions of "the cerebrum abdominale," as well as toward a "sweeping out of this long and narrow passage (the alimentary canal) with emetics and cathartics, a method of sanitary policing which had great credit with our predecessors, and is perhaps not sufficiently employed at the present day."[7]

During the summer and spring of this year I have used repeatedly the following prescription:

℞. Ext. conii fld	ʒ j. 3 ij.
Ferri perox	3 iij.
Spts. vini gallici	ʒ iss.
Quin. sulph	3 ss.
Syr. simp	ʒ iij.
Ol. menth. pip	3 iij.

M. Sig. 3 j. q. four hours until two hours before chill is expected, then q. two hours for two or three doses, then q. four hours.

To children it has been given very successfully by doubling the amount of syrup.

This prescription was given me by my friend Mr. F. O. Vaille, of Denver, Col., who had it from his father, the late Dr. Vaille, of Springfield, Mass. The remedy is known hereabouts as "Vaille's medicine," and has enjoyed a high degree of local popularity. Dr. Vaille's medicine is not a perfect solution, and for this reason, as well as for those already given, a more elegant preparation of

[1] Med. News, July 21 and November 24, 1883.
[2] Ibid., September 1, 1883.
[3] Ibid., November 24, 1883.
[4] Op. cit., p. 65.
[5] Vol. i., p. 78.
[6] Aitkin's Science and Practice of Medicine, p. 504, Lindsay & Blakiston's edition, 1866.
[7] Op. cit.
[8] Sir J. Fayrer, in Croonian Lectures, British Medical Journal, March 25, 1882, p. 423.

[1] Stillé's Therap. and Mat. Med., vol. ii., p. 378.
[2] Op. cit., p. 368.
[3] Tilt's Change of Life, Blakiston's Ten-cent Edition, pp. 52, 53.
[4] MEDICAL RECORD, December 9, 1882, p. 663.
[5] Op. cit., p. 233.
[6] See also Sir J. Fayrer's Croonian Lectures, op. cit.
[7] Dr. Sternberg, in MEDICAL RECORD, September 16, 1882, p. 317.

the essential drugs is desirable. I would like to cite two or three cases as follows:

CASE I.—A lady of strumous family history, and somewhat delicate organization, of about thirty-seven years of age, has suffered from malaria more or less for an indefinite time. In the early part of last April an intermittent fever became remittent, and the symptoms became alarming. My colleague, Dr. T. B. Chase, U.S.A., called me in consultation. The treatment had been orthodox, a stiff mercurial purge, a saline, and abundance of quinine. The doctor had been called up the night before to find the patient delirious and partly unmanageable. When I saw her, at 10 A.M., the fever was in a remission. The emesis, jactitation, and delirium had disappeared. There was moderate fever, and her appearance suggested that aggravated form of cinchonism which resembles mania. She was saturated with quinine; her whole organism seemed to rebel against the drug; a change of medication seemed necessary, and the prescription above given was ordered with the following substitutions: the solid extract of conium instead of the fluid, and the oxalate of iron instead of the peroxide, since the drugs first named were not on hand. A drachm was given every three hours with the happiest results. The lady became more quiet and cheerful, obtained the rest she needed, and, in fact, made a better and quicker recovery than I should have expected by means of the most judicious combination of quinine with opium, hydrobromic acid, chloral, camphor, bromide of sodium or potassium, or what not, to relieve her nervous condition, give her rest, and prevent the return of the paroxysm of fever with its attendant evils.

CASE II.—Was summoned in haste to H. B——, a well-nourished child of two years. Found him in a severe convulsion. The usual remedies restored him. A dose of oil was given, and Vaille's medicine (with double quantity of syrup) every three hours. On the third day there was a slight return of the "spasm." After this the child made a good recovery.

CASE III.—Mrs. M——, the mother of three children, was confined in March last. All went admirably for a week. Then a chill supervened, which lasted, in spite of every effort to break it, fourteen hours. Quinine was prescribed at the rate of forty grains a day, but could not be continued. When given by enema it was seldom retained; by the mouth, except in small and comparatively infrequent doses, it caused emesis. This case turned out to be a most troublesome one. First quartan, it gradually became tertian, and finally remittent and adynamic. The patient kept her bed for six weeks. Finally removed to a more salubrious apartment, the use of Dr. Vaille's medicine, as the patient could take it, alternating sometimes with quinine and with every other means at our command, saved a valuable life. This patient also took Warburg's tincture as furnished by the Government with no appreciable benefit. This, I suspect, was due to the worthlessness of the preparation.

It may be said that this case was one of puerperal septicæmia; but I am convinced that it was puerperal malaria, 1, because it did not originate until the eighth day after delivery; 2, there was no ascertainable cause of septic poisoning; 3, it took the course of a malarial fever; 4, finally yielded to anti-periodic medication; and 5, it occurred among highly malarial surroundings.

Of eighteen officers on duty in this post only three of those who have spent the summer and fall here have not been on sick report. Of these three, two at least (one of whom is the writer) attribute their immunity (comparative) to free use (prophylactic) of Vaille's medicine.

I have not had a case where the stomach would retain the mixture (and it usually does in nearly the same proportion of cases as it does quinine), and where the directions as to the state of the bowels, general hygiene, etc., were carried out, that Dr. Vaille's medicine has failed to relieve, at least as completely and for as long a time as quinine would have done.

It will be observed that there is a small quantity of quinine in the mixture, so that each dose of the remedy contains about two-thirds of a grain of quinine. Mr. Vaille has told me that his father used to think that the remedy was probably as efficacious without the quinine as with it. I regret that I have not tried the prescription without the quinine. I have used it, or one very similar, without the conium, and have, generally speaking, accomplished little with it.

That there may be a more palatable and more artistic way of administering conium, or any or all of the drugs found to be essential in Dr. Vaille's formula I am quite hopeful. The remedy acts as a mild laxative, diaphoretic, and tonic. Its quieting and soothing effects differ widely from the disturbance often occasioned by quinine, and it naturally acts very beneficially when cinchonism has been produced. As the preparation is not likely to be vaunted as a beverage, owing to its pungency, its habitual abuse is not a probable evil. I do not know that dilution with water impairs the efficiency of the medicine, but have generally recommended that water be not taken with it. To direct that water be not used during the administration, as is done with Warburg's tincture[1], is of course, out of the question.

The formula given for Warburg's tincture in the *New Remedies* for August, 1882, is not, considering the supposed physiological actions of the various ingredients,[2] very unlike Vaille's medicine.

Although the latter ought not to be a cheap preparation, it is considerably less costly than an equivalent amount of quinine. It possesses the advantage over Warburg's tincture that it is safe, so far as my experience goes (and I myself customarily take twice the prescribed dose), whereas Dr. Maclean, in "Reynolds' Practice,"[1] states that the administration of Warburg's tincture is never, in adynamic cases, unattended with danger.

If any physician will make a trial of Dr. Vaille's medicine, more especially in an "obstinate case of malaria," and make known the result of the experiment, it will greatly please me, and I trust that the observations will prove of general benefit.

FORT SILL, INDIAN TERRITORY, December 11, 1883.

THE USE OF ELECTRICITY IN CHOREA.—Dr. C. L. Dana writes: "Allow me to say a word in reply to Dr. Rockwell's criticism of my article upon anodal galvanization of the brain in chorea. The article in question did not appear in THE MEDICAL RECORD, as Dr. Rockwell states, but in the *Medical News*, and so far from ignoring Beard and Rockwell's experience, mention is made of it twice, as Dr. Rockwell would see if he had read the original paper. The priority in the use of central galvanization in chorea is ascribed to Benedikt by Beard and Rockwell themselves (p. 455, ed. 1871). Dr. Rockwell, in 1881, recommends general faradization, central galvanization, and the *ascending* galvanic current, with special reference to chronic chorea. His recommendations are quite different from what I proposed, viz., stabile anodal galvanization of the brain with gradually increasing and decreasing strength of current in acute chorea. Central galvanization does not include this, and there are no facts on record which show that an electrode over the epigastrium produces any especial effect upon the solar plexus. I much regret that Dr. Rockwell has hastily assumed that I would ignore his work."

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[1] Reynolds' Practice, vol. i., p. 80.

[2] ℞. Parts.

Tinct. aloës co.	80.
Tinct. aurantii cort.	5.
Alcohol, stronger	15.
Spts. camph.	2.
Quin. sulph.	1.

M.

[1] Op. cit., p. 81.

MR. BRODHURST'S VIEW OF THE CAUSE OF ROTATION IN LATERAL CURVATURE OF THE SPINE.

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In the third edition of his valuable work on curvatures of the spine Mr. Brodhurst has advanced a theory of the cause of rotation which fails to throw additional light on this feature of lateral curvature. The following passage presents his view:

"So soon as spinal curvature commences the axis of the trunk is changed, and the column is no longer poised in the vertical line on the heads of the thigh-bones. The superincumbent weight being no longer transmitted in the normal axis of the trunk, but falling on the side of the concavity of the primary curve, unequal pressure causes first compression of the intervertebral substances which enter into the curve. After a variable time this compressed condition of the intervertebral substance continues more or less, and is not removed by ordinary recumbency. The body of the vertebra then begins to move laterally, through the pressure on the inner, or concave side of the curve, and in consequence of pressure being removed from the convexity. And through this compression on the side of the concavity, a gliding, or *rotating* (lateral) movement of the bodies with the intervertebral substances is established. This compression acts first on the intervertebral substance, and secondly on the body of the vertebra; and causes thinning and lateral displacement, or *rotation* (curvature). *Rotation* (Curvature), then, is immediately due to abnormally increased pressure on the concave side of the spinal curve, and to removal of pressure from the convexity." [1]

I have ventured to Italicize certain words in the above passage and to insert other words parenthetically, in order to show that by omitting the words in Italics and substituting those in parentheses the passage becomes an exposition of the mechanics of simple curvature without rotation. It thus appears that the above explanation of the cause of rotation is essentially an explanation of the mechanics of lateral curvature with the question of rotation omitted.

If, however, to the above passage, altered as indicated, we append the statement that the motion of the bodies of the vertebræ is greater than that of the spinous processes, because the processes are embarrassed in the parietes while the bodies are further displaced laterally in the cavity of the trunk, this movement constituting rotation, as proposed by me in 1876, we have at once a statement of the mechanics of lateral curvature and an exposition of rotation on grounds which are correct and scientific.

Before my attention was called to the fact by Mr. E. Noble Smith [2] I was not aware that this method of explaining the cause of rotation had been employed by Mr. Rogers-Harrison in 1842. His words are as follows: "To conceive the cause of this extraordinary mode of derangement it is necessary to imagine that in a well-marked curvature of the spinal column continuing to sustain the weight of the body, the vertebræ of the middle of that curvature are, in fact, in the same situation as if they were urged by a direct and horizontal force on the side of the concavity, towards that of the convexity. In this impulsion the body of the vertebra, isolated in its anterior and lateral parts, experiences no resistance; but the articular processes are powerfully restrained by their reciprocal connection. The transverse processes find in their articulation with the tuberosities of the ribs a resistance to their deviation, which would be very weak on the part of an isolated rib, but which becomes considerable by its union with the adjoining ribs. It results from this exposition, that, behind the central part of the dorsal column, there is efficacious resistance to its lateral displacement; that before this central part there is no resistance to that displacement; and consequently the vertebra must necessarily turn on its axis to arrive at the position which observation so frequently presents." [1]

It is worthy of remark that Mr. Rogers-Harrison was opposed to the treatment of lateral curvature by mechanical support applied to the ribs. Dr. Dods, who appears to have been the first to observe rotation, was also opposed to this form of treatment. The latter writes as follows: "I must here caution those who shall treat contorted patients in the manner I have recommended by no means to make pressure upon the protruding ribs, with the view of replacing them; for, if they attempt to do so, they will be more likely to increase the rotation, particularly of the lumbar [2] vertebræ than diminish it." [3] There is wisdom in this precept, because lateral pressure on the ribs would be equivalent to lateral pressure applied to the processes of the vertebral column, which, if it did not increase the rotation, would at least stand in the way of its reduction. If lateral pressure could be applied directly to the bodies of the vertebræ the problem of mechanical treatment would indeed be simplified, because pressure thus applied would oppose at once the lateral curvature and the rotation.

In the passage above quoted from his book Mr. Rogers-Harrison gave the true explanation of the cause of rotation in lateral curvature of the spine, an explanation which cancels and destroys all the other theories which have been proposed. That of Professor Herman Meyer is especially ingenious and fortified by elaborate experiments. It is, however, quite different from the view presented by Mr. Rogers-Harrison in 1842, and myself at a later date. It is true that I was familiar with Professor Meyer's theory, [4] but it can hardly be supposed that the view presented by me and the method which I employed for its illustration were suggested by his work. In the paper referred to I present Professor Meyer's conclusions and give a reason for doubting their correctness in the following words: "Professor Meyer discovered that the anterior portion of the spinal column possessed great expansibility, and the posterior portion great compressibility, and inferred that, when the lateral curvature took place, the posterior portion of the column would seek the concavity and the anterior portion the convexity of the curve." "Considering the proportionate length and thickness of the spinal column, the rotation which its bodies perform is too short and sharp, and decided to be produced . . . by the different endowments of its anterior and posterior portions as to the physical qualities of compressibility and expansibility." [5]

Professor Meyer's paper [6] makes no reference to the fact that the posterior part of the column has less lateral displacement by reason of its being a part of the parietes than the anterior part which projects into the cavity of the trunk. This difference in the anatomical relations of the two parts is the key to the problem which has confused so many observers. A recent German writer, apparently made desperate by the conflicting theories which the study of this question has occasioned, denies the very existence of rotation. He says there is no rotation, only the appearance of it. The too-long-forgotten theory of Mr. Rogers-Harrison renders easy the recognition of rotation and fully explains its mechanism.

It is well to separate the question of the cause of rotation from the more important and difficult question, the cause of lateral curvature. The logical and practical view of these questions is that in which rotation is considered as a feat-

[1] On Curvatures and Disease of the Spine. By Bernard E. Brodhurst. Third edition, p. 39. London, 1883.
[2] London Medical Record, December 15, 1882, pp. 493, 494.

[1] Deformities of the Spine and Chest. By Charles H. Rogers-Harrison, pp. 93, 94. London, 1842. Library of the Surgeon-General's Office, Washington.
[2] Dorsal?
[3] The Rotated or Contorted Spine. By Andrew Dods, M.D., pp. 226, 227. London, 1824. Library Surgeon-General's Office.
[4] Brodhurst, op. cit., pp. 37, 38.
[5] Transactions New York Academy of Medicine, 1876, pp. 317, 328, 329.
[6] Die Mechanik der Skoliose. Professor G. Hermann Meyer in Zürich, Arch. klin. Med., xxxv., 1866, pp. 225–253.

ure of the ordinary forms of lateral curvature, whatever may be their cause. That the two questions are clearly distinct is obvious from the fact that rotation occurs in health as well as in disease. It is not only pathological, an incident of disease and deformity, but also physiological, a feature of the normal lateral curving of the spine. Mr. Brodhurst [1] has observed and well described the appearance of rotation in health, as it varies from right to left with each step of locomotion, together with the lateral undulating movement of the spine from the pelvis to the head. He adds that these phenomena may be studied with advantage in young acrobats, in whom exaggerated positions of the trunk and limbs will display these movements of the vertebræ.

FLECHSIG'S SCHEME OF NERVE-TRACTS IN THE BRAIN.

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The recent discovery of important facts in the anatomy of the nervous system has been largely due to the application of new methods of research. Among these methods that of Flechsig has been productive of most reliable results. It will be remembered that Flechsig discovered, in 1876, the fact that in the fœtus the development of the nerve-fibres and of their medullary sheaths follows a definite law, various nervous tracts developing their sheaths at various times. By examining brains and cords at different stages of development it was therefore possible for him to trace special tracts along their course, as each tract presented a characteristic appearance which distinguished it from all others. The result of this new method was to divide the white matter of the spinal cord into a series of columns, and the supposition that each of these columns differed in function as well as in time of development has been confirmed by physiological research. In 1881 Flechsig applied the same method to the investigation of the nervous tracts in the brain, and having completed his observations, he has recently (August, 1883) published a "Plan of the Human Brain." This contains a statement of the course of the groups of nerve-fibres from the cortex to the periphery and between the basal ganglia and the nerve-centres in the medulla and cord. Independent investigations regarding the tract of secondary degenerations have led to conclusions which agree remarkably with these discoveries of Flechsig. They are therefore doubly worthy of note. His conclusions are as follows:

I.—There exist direct nervous tracts between the cortex of the brain and the motor and sensory nerves. The motor tract arises from the cortex of the parietal lobe (including both central convolutions). The anterior limit of the motor zone of the cortex is the sulcus precentralis. The posterior limit is less clearly defined and reaches probably as far back as the precuneus. The paracentral lobule, the anterior part of the precuneus, and the central convolutions (with the exception of the anterior-inferior part of the anterior central convolution, which is in connection with the cranial motor nerves, especially with the facial and hypoglossal) are connected with the motor nerves of the body by means of the "pyramidal tracts." The course of the pyramidal tracts is a *direct* one, and they have no connection with the basal ganglia or with the centres in the pons, but pass to the spinal cord. In the internal capsule the pyramidal tracts lie in the middle third; in the crus cerebri in the median portion of the outer half; and in the medulla each tract divides into a small direct pyramidal tract lying in the anterior median column of the same side, and a large crossed pyramidal tract lying in the lateral column of the opposite side. Nerve-fibres from these tracts enter the gray substance of the cord of the side on which they lie, and are connected with the large multipolar ganglion cells. The greater part of the pyramidal tracts go to the motor cells of the cervical and lumbar enlargements and hence connect the motor area of the cortex with the extremities.

The direct sensory tracts at present determined are three:

First.—The olfactory tract, from the olfactory bulb, which divides into three parts: the first passing to the base of the frontal lobe, probably to the gyrus fornicatus; the second to the cortex of the gyrus uncinatus; the third passing backward through the lamina perforata anterior to the posterior part of the internal capsule, where it is lost.

Second.—The optic tract, made up of fibres from *both* optic nerves, passes (1) to the corpus geniculatum externum, from which fibres radiate outward through the posterior part of the internal capsule of the same side to the corona radiata; (2) to the anterior corpus quadrigeminum, with whose gray cortical zone it is in direct connection to a much greater extent than with the white matter beneath it. This tract then turns back upon its own course, and passing over the corpus geniculatum externum joins the radiating fibres from that body before mentioned. This bundle of radiating fibres passes backward on the outer side of the posterior cornu of the lateral ventricle to the visual area of the cortex which lies in the cuneus and occipital lobe.

Third.—The sensory fibres from the skin pass from the spinal cord and pons through the tegmentum of the crus cerebri, through the posterior part of the internal capsule, which lies between the pyramidal tract and the corpus geniculatum externum, and upward along the outer and upper margin of the optic thalamus into the corona radiata. Their termination is in that portion of the cortex which lies between the sulcus precentralis and the anterior part of the occipital lobe. The cortex which lies beneath the parietal bone is the portion in which the sensory fibres from the skin terminate.

II.—There exists a system of nerve-tracts in connection with the optic thalamus.

First.—The corona radiata is largely composed of nerve-fibres which pass outward in all directions from the external surface of the optic thalamus and connect it with all parts of the cortex. The cortex of the frontal lobe is joined with the optic thalamus by means of fibres which pass through the anterior part of the internal capsule and go to the anterior and outer nuclei of the thalamus and to the stratum zonale. The parietal cortex in its entire extent is joined with the thalamus by fibres which pass to the outer and inner nuclei and to the stratum zonale. The cortex of the temporo-occipital lobe sends a large bundle of fibres to the pulvinar (the posterior outer third) of the thalamus and to its stratum zonale. The cortex of the Sylvian region is joined with the outer and inner nuclei of the thalamus and with its stratum zonale. The cortex of the hippocampal region joins the anterior outer nucleus of the thalamus by means of the fornix, which, passing first to the corpus mammillare, turns upon itself and then ascends. The lenticular nucleus sends fibres through the internal capsule to the basal portion of the thalamus, but whether these end in the thalamus or pass down to the tegmentum is undecided.

Second.—A second series of tracts connect the thalamus with the crus cerebri and its tegmentum. 1. Vicq d'Azyr's bundle of fibres, passing downward from the anterior outer nucleus to the corpus mammillare, there turns upon itself and sends some fibres to the fornix (already described) and others downward and backward between the red nucleus and the substantia nigra of the tegmentum to the formatio reticularis of the medulla. 2. Meynert's bundle is made up of fibres coming from the stratum zonale of the thalamus, from the ganglion habenulæ, and from the gray matter lining the third ventricle, which unite and pass through or near the red nucleus, are then connected with the ganglion interpe-

[1] Op. cit., pp. 30, 31.

dunculare and go downward toward the formatio reticularis of the medulla, but cannot be traced into it. 3. Fibres from the laminæ medullaris of the thalamus pass downward to the red nucleus and to the gray matter near it. These cannot be traced farther with certainty, but probably go to the cerebellum.

III.—There is a system of nerve-fibres passing to the gray centres of the pons.

First.—A tract from the cortex of the frontal lobe passes through the anterior division of the internal capsule, and the inner two-fifths of the crus cerebri, to the gray nuclei in the antero-median substance of the pons. From these nuclei fibres arise which go to the lateral and posterior portions of the cerebellum; and as these develop their medullary sheaths at the same time as the first, and as the first are undeveloped in cases of congenital absence of the cerebellum, it is probable that by these two sets of fibres the frontal lobes and the cerebellum are joined, the nuclei of the pons being only interpolated in their course.

Second.—From the postero-median gray nuclei of the pons a tract of fibres ascends to the temporo-occipital cortex. These develop late (several months after birth) and are never found when there is absence of the cerebellum, hence they connect the cerebellum with this part of the cerebrum. This tract passes upward from the pons through the external fifth of the crus cerebri, through the basal portion of the internal capsule, and then pass along the base of the lenticular nucleus and outward to the cortex. The fibres passing toward the occipital region cannot be followed far, but those to the temporal lobe can be traced to its very apex. These fibres are not to be regarded as the auditory tract, for sensory tracts develop early while these develop late; and in children who are able to hear perfectly these fibres are still without sheaths. The same objections prevent the supposition that they convey tactile impulses. Their function is unknown.

Third.—There are fibres which pass from the nucleus caudatus and from the outer body of the nucleus lenticularis downward through the middle of the crus cerebri to the substantia nigra and beneath it to the nuclei of the pons. These also are connected with transverse fibres to the cerebellum.

IV.—In the tegmentum of the crus cerebri, lying beneath the corpora quadrigemina, there are several distinct nerve-tracts to be found.

First.—The largest of these is the "Bindearm," or "processus a cerebello ad testes," or "superior peduncle of the cerebellum." This tract arises partly from the dentalo nucleus of the cerebellum, which has connections both with the cortex of the cerebellum and with the restiform tracts from the spinal cord, and partly from the cortex of the cerebellum near the vermiform lobe. It passes upward through the tegmentum, crosses to the opposite side, to the red nucleus, where a large part of the tract terminates. The remainder divides into two parts, the first of which passes forward, and crossing the internal capsule ends in the lenticular nucleus; the second passes backward and outward and forms a part of the corona radiata, its destination being unknown.

Second.—The lemniscus "Schleife" is made up of two sets of fibres; one, including two-thirds of the tract, degenerates downward; the other one-third degenerates upward. The larger of these arises from the outer body of the lenticular nucleus, passes along its base, crosses the internal capsule, passes above the Luy's body and to the outer side of the red nucleus, and downward through the pons, in which it lies above the pyramidal tracts, to the olivary bodies. The smaller begins at the sensory decussation in the medulla, passes upward through the pons, and passing behind the red nucleus turns toward the lower corpus quadrigeminus, and going beneath this and under the pulvinar reaches the corona radiata, where it is lost.

Third.—The posterior longitudinal bundle lies just under the gray matter of the fourth ventricle and consists largely of association fibres between the various cranial nerve-centres, especially between the third, fourth, and sixth nuclei. Inferiorly this bundle can be traced into the anterior columns of the cord, and superiorly it reaches to the gray matter of the third ventricle. It is the first tract to develop in the fœtal brain.

Fourth.—The formatio reticularis contains numerous longitudinal fibres whose connections are still unsettled. Some arise from the corpora quadrigemina and pass downward. Others pass upward from the posterior columns of this cord.

Fifth.—Several of the tracts above described, viz.: the second division of the superior peduncle of the cerebellum, the smaller division of the lemniscus, a few fibres from the posterior longitudinal bundle, and the ascending fibres from the formatio reticularis, unite at about the level of the corpora quadrigemina, and are joined by fibres coming from those bodies. The mass of fibres thus formed passes into the posterior part of the internal capsule and spreading outward opposite the posterior third of the optic thalamus radiates upward and backward and outward toward the cortex of the parietal and temporal regions and toward the precuneus. This is named the corona of the tegmentum "Haubenstrahlung." As a whole it is parallel to the pyramidal tract from the cortex to the periphery, but lies posterior to this in all its parts. Its fibres degenerate upward from the site of any lesion, while those of the pyramidal tracts degenerate downward from the site of a lesion. Its fibres are isolated by medullary sheaths at a later stage of fœtal development than those of the pyramidal tracts. For these reasons Flechsig considers this as the general sensory tract from the periphery to the cortex, while the pyramidal tract is the motor-path from the cortex to the periphery.

This plan of the human brain differs in some respect from that of Aeby, of Berne, and also from that of Wernicke. In regard to the most important tracts, however, they all agree, and the results of Flechsig may be accepted as the outcome of careful research by means of an original and trustworthy method of investigation. Any work which promises to make the complex subject of the anatomy of the brain more clear and simple deserves attention. The method now pursued by German authorities of tracing tracts between various centres by means of the order of their development, and of the direction of degeneration, has cleared up many doubtful points and brought order out of confusion.

Perforating Duodenal Ulcer, Autopsy.—Dr. F. B. Streeter, of Glens Falls, N. Y., sends the following history: "Mrs. Mary E. C——., a native of this State, aged forty-five years, was taken the morning of December 31, 1883, with a severe attack of vomiting, in which the contents of her stomach were ejected, and, finally, a considerable amount of blood. She soon became collapsed, and at 3 P.M. the same day died. The autopsy, performed twenty-four hours after death, was made by direction of a Coroner. The brain and thoracic organs were normal. Nothing was found in the stomach except a few ounces of blood. There was some slight thickening and contraction of the pylorus. The first third of the duodenum was thickened, showing three puckered cicatrices, and it was surrounded by old and very tough adhesions of the peritoneum, which had evidently proved useful in prolonging life at some previous time. At the lower end of the first third of the intestine there was an ulcer the size of a dime, communicating freely with the free cavity of the peritoneum. The history of the case, as far as it could be learned, is like that of any similar ulcer of the stomach. There was no evidence of her having had any constitutional disease, the remaining organs of the abdomen being in a healthy condition."

CASE OF BELLADONNA POISONING RESULTING FROM THE APPLICATION OF A BELLADONNA PLASTER.

By MARTIN J. FLEMING, M.D.,
NEW YORK.

I was hastily summoned, on the morning of December 19th, to see J. R——, aged forty-three years, machinist, a muscular, well-developed man, of temperate habits, and robust physique.

I was informed that, just previous to my arrival, a diagnosis of insanity had been made, and the patient's removal to the Pavilion for the Insane at Bellevue recommended.

I found the patient in a condition of great restlessness and excitement, moving about his room with a staggering, uncertain gait, and complaining chiefly of vertigo and weakness. His pupils were dilated, his vision indistinct, and he seemed unable to recognize even any member of his own family. When he attempted to seat himself on chair or sofa, he appeared to miscalculate the distance and would fall to floor in sitting posture unless supported. He was delirious; and his delirium was of a mirthful character, unless his movements were checked or interfered with, when he became violent. He imagined for the most part that he was in his shop and guiding his machine. At first sight I would have supposed that I had to deal with a case of alcoholism, were it not that his temperate habits excluded that supposition.

He was very thirsty. His voice was husky, and he spoke only in a loud whisper. These voice and throat symptoms his friends attributed to his having taken cold while working in a draught.

There were some signs of a rash on the body; but as he wore a flannel and usually perspired freely while at work, the cause of the eruption was uncertain.

His respirations were 30 per minute and his pulse 108.

He had been at work during the forenoon of the preceding day, and had retired at 8 P.M., feeling quite well, except that he had some pain and stiffness in back. He complained of dizziness about 9 P.M., and an hour later, about 10 P.M., he arose from bed, tried to wind his watch with a table-knife, and next proceeded to cut it to pieces. As the night wore on his delirium and vertigo became more intense.

Restlessness, huskiness of voice, and thirst appeared; and all these symptoms grew gradually worse, up to the time I saw him, at 11 A.M. next day.

This case seemed clearly one of belladonna poisoning; but, as he had taken no medicine of any kind internally, I felt puzzled to account for the cause, until I at last discovered on his back what afterward proved to be a belladonna plaster.

He had had some pain in back during the preceding day, had rubbed his loins at about 4 P.M. with an irritating liniment which was in common use at the machine-shop, and at about 8 P.M. had applied a belladonna plaster on the recommendation of a neighboring druggist.

The plaster (five by eight inches in size) was carefully removed. Some spots of abraded skin were discovered underneath, which his wife assured me were not present when plaster was applied.

Small doses of opium were ordered at intervals of two hours.

Six hours later, when I again saw the patient, his condition was very much improved. He now recognized his friends about him and was able to give an intelligent account of how he felt. His delirium had vanished. Vertigo, restlessness, huskiness of voice, and dryness of throat were far less marked, and by the following morning all the apparent physiological effects of the drug, belladonna, had well nigh disappeared, except the dilatation of pupil.

The patient has since assured me that he had no recollection whatever of anything that had happened from the beginning of the active stage of delirium up to the time of the administration of the third dose of opium. The points of interest in this case that, to me, seemed to make it worthy of being reported, were as follows:

First.—The unusual cause, and the consequent liability of the medical attendant to overlook that cause; very few cases of poisoning from the use of the belladonna plaster, as far as I know, having been reported.

Second.—The rapid development of delirium, suggesting, possibly, a peculiar susceptibility of the patient to the action of the drug.

The case also suggests the advisability of cautioning patients to avoid applying such plasters over an abraded skin surface. It furnishes an instance of the delirium produced by drugs being sometimes confounded with the symptoms of insanity, and illustrates one of the dangers of counter-prescribing.

132 LEXINGTON AVENUE.

ELECTRICITY IN SUPERINVOLUTION AND SUBINVOLUTION OF THE UTERUS.

By A. D. ROCKWELL, M.D.,
NEW YORK.

Dr. Fordyce Barker, in some remarks made before the last meeting of the American Gynecological Society, on superinvolution of the uterus, declared that but a small proportion of cases could be benefited by any method of treatment. In his opinion very little could be accomplished when the difficulty was associated with evidence of arrested or defective ovulation; while in those cases where benefit was derived, there was always evidence of active ovulation. He enumerated as symptoms of the existence of ovulation associated with superinvolution—disturbance of the vascular or nervous system at or near the menstrual period, such as intense headache, flushing of the face and congestion of the eye, pelvic pain and sense of dragging, with nausea, vomiting, etc. In the following case, lately seen and treated, some of these symptoms were distinctly marked, and so far forth, are confirmatory of Dr. Barker's experience.

At stated periods there was severe headache, pelvic pains, and nausea. Associated with these symptoms, and far more persistent than any of them, was a condition of melancholia that became intensely aggravated immediately preceding the effort at menstruation, and manifesting itself by an insuperable aversion for persons and things that ordinarily excited in her no such feeling. Two years previously she had suffered from a difficult and dangerous labor, where it became necessary to dismember the child, and since that time the menses had not appeared, excepting on two or three occasions, when it was exceedingly scanty, and in other ways unnatural. Upon measurement, the uterus was found to be but about one and three-fourths of an inch in length. The patient was treated almost daily, for about three months, by internal applications of both faradism and galvanism, when a slight show appeared for the first time in eighteen months.

At the next menstruation, a few weeks subsequently, the flow was much more abundant.

I regret to say that after the first month I neglected to repeat the measurement, and since the rather abrupt discontinuance of treatment, no opportunity has presented itself.

The reappearance of normal menstruation would, however, seem to be sufficient evidence of the entire success of the efforts made.

In subinvolution of the uterus, my experience, though limited, has been somewhat greater than in superinvolution. Among several cases where undoubted amelioration occurred, I have in mind one in particular, which Dr. T. G. Thomas saw with me, and pronounced to be one of subinvolution.

Excessive menstruation, with abundant leucorrhœa, together with other symptoms, attributed to the size and weight of the organ, were associated in this case. Occasional local applications wrought, within a few months, a very great change in the condition of things.

The menstruation, instead of being excessive and continuing for nearly a week, became almost scanty and with a duration of only twenty-four hours.

The leucorrhœa ceased to annoy her to any extent, and the various other symptoms supposed to be dependent upon the enlarged uterus entirely disappeared.

The apparently paradoxical action of electricity, as illustrated in the treatment of superinvolution and subinvolution of the uterus, is not a new thing. We constantly find that it relieves both hyperæsthesia and anæsthesia. It is used successfully to excite torpid excretory processes, and also to restrain this function when too active. In the same way it may cause increase or it may cause diminution in the size of a part or organ.

Goitres, for example, are readily reduced in size, and sometimes entirely disappear under simple external galvanization, and so with other forms of morbid growths. On the other hand, it is well known to all whose experience has been at all extended, that normal tissue may be surprisingly developed by persistent local applications. It is perhaps not out of place to say here, as an illustration of this point, that the arms of the writer, have been much increased in size, and even strength, by the frequent action of a current of faradism on them through a series of years, and in the line of professional work. In view of these general facts and the suggestive results herewith given, the possibility of obtaining better results than heretofore in the opposite conditions of super- and subinvolution of the uterus is quite evident.

Progress of Medical Science.

Excision of the Shoulder-joint.—Among the operative measures as regards the merits of which surgical opinion is undergoing change, resection of the shoulder-joint occupies a conspicuous place. Mr. William Stokes (*British Medical Journal*, November 10, 1883), from a careful consideration of the subject, is led to announce the following propositions: 1. The operation should be performed by the Ollier-Langenbeck method, avoiding, however, in pathological resections periosteo-capsular preservation. 2. The excision of bone should be as limited in amount as is compatible with the removal of disease. 3. Preservation of the periosteum is only indicated in traumatic resections, where there is much involvement of the shaft of the humerus. 4. The use of splints is not indicated in the after-treatment of resection of the shoulder-joint. 5. Rapidity of union is strongly indicated after this operation, and can best be obtained by a rigid adherence to Listerian antiseptic practice. 6. Passive movements, gymnastic exercises, and massage should be commenced as soon as possible after the operation. 7. The statistics of the operation, whether done for traumatic or pathological, suppurative or non-suppurative lesions, are eminently satisfactory and encouraging.

Iodoform in the Treatment of Ophthalmia.—Iodoform appears to be finding favor with German oculists in the treatment of certain ophthalmic affections, and notably catarrhal conjunctivitis, purulent conjunctivitis, and granular lids. Encouraged by these successes, M. St. Martin, of Paris, has adopted the treatment in palpebral granulations, with consecutive vascular pannus, cicatrices of the cornea, and keratitis, and is well satisfied with the result. The effect of the agent in the last-named affection was little short of marvellous. The iodoform was employed with vaseline, equal parts of each, and introduced into the *cul-de-sac* of the eye affected. The eyelids were then closed and covered with a piece of fine linen and cotton wool, the whole maintained by a flannel bandage, and left in that position until the following day. In a case of double pannus of long standing, six weeks sufficed for a cure, all trace of the cicatrix disappeared at the end of three months. That form of keratitis known as keratitis *en Candelette*, yielded in a rapid manner to the treatment. Out of twenty-one patients, eighteen got completely and rapidly well without relapse, the three others recovered less promptly. In a case of diffused keratitis the pomade seemed to have no effect.

The Action of Salicylate of Soda on the Uterus.—Sabatowski has shown that salicylate of soda has a markedly good effect in calming the pains accompanying the so-called arthritic dysmenorrhœa, and in his *Thèse* he insisted on the menorrhagic action of this drug, which was previously mentioned by Bucquoy. M. Balette (*Thèse de Paris*, 1883) has published several cases confirmatory of this action. It produces visceral congestions, which may cause hemorrhage; it is at this point that the uterine hemorrhage appears. Hence it may excite and bring on the menstrual flow. Whether or not the drug is an abortifacient still remains to be seen, though experiments on guinea-pigs have completely negatived this idea. It is probable, however, that in regard to its oxytocic properties it has been almost as much maligned as sulphate of quinine.

Treatment of Locomotor Ataxia by Cutaneous Faradization.—Dr. C. Engelskjön reports at length in the *Norsk Magasin for Laegevidenskaben*, No. 3, 1883, the histories of two cases of tabes dorsalis treated by him by cutaneous faradization. The first case was that of a lady, thirty-nine years of age, of nervous temperament, and presenting a family history of various nervous diseases. Her ataxia dated back about three years, the first manifestations being a difficulty in ascending the stairs, and a sensation as if she would fall over backward. About six months later she was unable to stand without tottering when the eyes were closed, and began to complain of pains in the limbs. The most varied plans of treatment were tried without effect, and her condition continually grew worse. It was then that a trial was made of a strong faradic current applied to the skin of the forearm. The effect was almost instantaneous. The pains, which had been excruciating, were relieved at once, and although they soon returned, were always driven away by a reapplication of the current. This treatment was continued twice a day for several months, at the end of which time every trace of ataxic walk had disappeared. There was some question in this case whether the symptoms were not hysterical, but the author thought that they were not. The second patient was a man, forty-seven years of age, who gave a history of syphilis twenty years previously, and who had had symptoms of tabes for seventeen years. Electricity, applied in the same manner as in the former case, was successful in quieting the pains, though at the time the report was made the treatment was of too short duration to allow of any marked improvement being noticed in the other symptoms. And the author had but little hope that any permanent result would be obtained owing to the length of time that the disease had existed. While he was pursuing these investigations Dr. Rumpf published a paper in the *Neurologisches Centralblatt*, describing the same method. Dr. Engelskjön found that the same effect was produced by the galvanic current applied in the same way, and further, that it was due solely to peripheral nerve irritation, as the same, or even more striking, results, as regards the quieting of the lancinating pains, followed the application of a mustard plaster. He stated that cutaneous faradization has no therapeutic value in those cases of locomotor ataxia, the first symptoms of which are referable to atrophy of the optic nerve.

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ON THE VALUE OF METALLO-THERAPY.

IT is now about four years since the subject of metallo-therapy was brought prominently before the scientific world by second report of the Committee of the Société de Biologie. At that time we discussed the matter editorially, and expressed the opinion that metallo-therapy was not a thing of very great importance practically, and that its scientific legs were still very weak—outside of Paris. Since then the subject has been studied with great industry, though still chiefly in Paris. Quite recently a writer in the *Archives of Medicine*, Dr. Grace Peckham, has presented its claims to the profession in this country. The writer begins with a quotation from Charcot: "Metallo-therapy is no more denied. It is a question solved; the facts have been methodically established and now remain an acquisition to science."

An account is then given of the clinical facts observed concerning metallo-therapy and the theories offered to explain them.

These phenomena, produced by the application of metal discs, and which consist chiefly in changes of sensation, are quite well known to the profession. The theories offered to explain them, however, have been multiplying, and now amount to four, viz.: the theory of expectant attention, the electrical theory, the theory of mechanical irritation, and Schiff's molecular theory. While none of these appear to satisfy our critic's mind the theories of expectant attention and the electrical theory are positively rejected as insufficient.

Dr. Peckham then relates a number of cases of his own in which metals have been used with success, and describes the technique of this branch of therapeutics. The cases related are those chiefly of parasthesia, anæsthesia, or hyperæsthesia, and pain, in women. The application of metal plaques in all instances produced relief or cure.

The fact that the application of various metal plaques to the anæsthetic limbs of hysterical women will produce changes in the condition of the sensory mechanism is one about which there can be no question. It happens, however, that almost any mechanical, electrical, or chemical irritant will produce the same result. Thus, bits of wood, blisters, weak electrical currents, magnets, even tying a handkerchief around the affected part, will produce the same results. This may occur also even when the anæsthesia is of organic origin. No theory, therefore, has yet been advanced which is so satisfactory, on the whole, as the one which supposes that the phenomena are entirely mental, and dependent upon attention, expectant or non-expectant. Despite the large amount of careful work, therefore, expended upon the subject, we must still consider that the scientific and practical outcome is small.

Because metallo-therapy is still considered by most of the scientific world a part of mental therapeutics, it does not follow that it is altogether useless or without practical value. Certainly some very good results are obtained at times, and we can conscientiously urge American physicians to test it more extensively than has yet been done.

The method of using metals is briefly as follows: The physician must have a considerable number of discs of iron, copper, zinc, gold, silver, tin, and platinum. The personal sensibility of the patient must then be tested, in order to find out to which one he is the most sensitive. A disk is applied to the affected part and, if it is the right one, it will, we are told, generally cause a sense of warmth, burning, or pricking within half an hour or an hour. Five to twelve disks can then be applied and left on until relief is felt. Burq uses a still greater number, and even "drapes" his patient with the proper metal. Dr. Burq also considers that the same metal should be given internally, either in the form of a powder of the pure metal or a solution of its salt. Burq and Charcot give the following as the order in which to try metals: Iron, zinc, copper, gold, silver, tin, and platinum. Vigoureaux says that among one hundred persons, seventy are affected by iron, while thirty are affected by the remaining metals. It remains to be seen in what order the insensible and hard-headed American responds.

THE SIMS MEMORIAL FUND.

THE good work inaugurated and under the direction of the Central Committee goes forward enthusiastically. Before the formal appeal was made several subscriptions of one hundred dollars each had been offered, and others have arrived since, which remove any doubt as to whether or not the medical profession is ready and willing to pay homage to the name of him who erected for himself a monument more enduring than either bronze or marble.

We earnestly hope that no one will hesitate to contribute because he is unable to place to his credit in this fund a large sum of money, as subscriptions of one dollar and upward will be gladly welcomed.

A NEW MEDICAL SOCIETY.

THE physicians in this city who have found themselves in the minority on the subject of a restrictive code have organized a new medical society, which is called "The New York County Medical Association." The first formal meeting was held last Monday evening, February 14th, when Dr. Detmold presided. In an address of welcome, that gentleman stated that the main object of the new society was to secure a representation for this State in the American Medical Association. To this end attempts would be made to organize other new county societies and to form a second State Society.

It was a shrewd movement on the part of the President to turn the issue in this direction, for no one can

find fault because many desire to be recognized by the American Medical Association.

The only question which arises in candid minds is, whether it was wise to take a step which necessarily increases the discord and accentuates the difficulties among the members of the profession in this State. If patience had been exercised and some attempt to work harmoniously had been made, the object desired, of representation in the National Association, could undoubtedly have been gained without thus making an open rupture in the profession. As it is now, at the very utmost, they can only secure the partial representation of a profession crippled and divided by the new movement. The satisfaction which will be felt cannot be great to generous minds.

We fear that the statement regarding the objects of the association is hardly an ingenuous one, and that its existence is more the expression of ill-temper and disappointment than of the efforts of men earnestly desiring the highest interests of the profession.

THE NEW HOSPITAL OF THE POST-GRADUATE MEDICAL SCHOOL.

THE success of the Post-Graduate Medical School has been such as to compel the faculty to obtain larger accommodations than they have heretofore had. The school has been fortunate enough to secure a building admirably adapted for clinical instruction and for the purposes of a hospital. It is situated at East Twentieth Street, and is a large, well-built four-story structure with over ninety feet front. It contains rooms sufficient for the accommodation of about one hundred patients, besides a well-lighted lecture and operating room, and large rooms for dispensary work. We are informed that the Faculty will use the basement, the first floor and part of the second, for out-patients and for purposes of clinical instruction, laboratory work, etc. The remainder of the building will be devoted to in-patients. In the rear of the hospital there will be a dead-house and a room for experimental work.

The Post-Graduate Medical School will, with this new building and its appurtenances, be most admirably equipped in every way for the purposes of practical, clinical instruction.

The medical profession is to be congratulated that the opportunities for obtaining this kind of instruction have been so very much increased in the past year, chiefly through the agency of the post-graduate schools. It is a satisfaction to learn that the New York school, which led the movement in this city, has met with such indubitable success, and has made its clinics so rich and fruitful in every department of medicine.

A few years ago there was some excuse for a doctor graduating and going into practice without ever having seen a case, except perhaps from the back seat of a large amphitheatre. Now, with our well-supplied clinical schools, it is unpardonable that such a thing should happen.

SECOND-CLASS STEAMSHIP DOCTORS.

IT is stated on the authority of the *Medical and Surgical Reporter* that the doctors on the Red Star Line, running between Antwerp and New York and Philadelphia, have been obliged by the Company to live second-class. Instead of dining with the captain and cabin passengers, they have to mess with the steward and submit to the accompanying social indignities. The Red Star Line is owned by Belgians, but it is officered, we are told, chiefly by Americans. The Red Star doctors have naturally protested against the treatment which they have received, but without avail, and some have in consequence resigned. The medical profession is urged to take up the cause of these second-class doctors and urge the Company to restore them to their cabins.

If protests would produce the slightest effect upon the Company, we might be disposed to indulge in them. They would, however, be, as medical protests have almost always been, of no avail whatever. The ship-surgeons must attend to this matter themselves. And they can do it. If they are really educated men and gentlemen they will not consent to be meanly lorded over by a few autocratic shipowners. If they are not gentlemen, why let them mess with the steward. They must not ask the profession to push them in with a better class, simply because they are doctors of medicine. It is no disgrace to dine at the second table. It is only a humiliation to feel that ignorant "Sam'ls of Posen" should be allowed to sit higher than members of a learned profession.

The ship-surgeons, however, we repeat, have the matter in their own hands. They owe it to the profession and themselves not to allow themselves to be insulted. If they do not resign, but sit cringingly with the servants and plaintively ask to be pulled up higher, they deserve nothing but what they get. If they resign, then whoever is so small-spirited as to creep into the vacancies is doubly worthy of professional contempt and ostracism.

THE PRESCRIPTION-PAD AND THE PESTLE IN CINCINNATI.

THE physicians and pharmacists of Cincinnati have been having discussions and conferences, which have resulted in the following pretty bit of nonsense:

"*First.*—Pharmacists shall not prescribe medicines for diseases.

"*Second.*—Pharmacists shall not too frequently fill prescriptions which might lead to disease or vicious habits.

"*Third.*—Pharmacists shall only supply medicines on prescriptions, or where the complaint is stated by a customer to be one dangerous to life.

"*Fourth.*—The right to refill prescriptions, when presented by the person to whom they were issued by the physician, is acknowledged.

"*Fifth.*—Physicians should not dispense medicines, except in cases of emergency, nor prescribe proprietary, secret, or copyright medicines.

"*Sixth.*—The prescriptions, when in the hands of the pharmacist and filled, shall be the latter's property, as they may be necessary for protection.

"*Seventh.*—The use of prescription blanks by physicians, with the address of any individual pharmacist on them, is liable to misconstruction, and shall be discontinued.

"*Eighth.*—The evils arising from the wholesale use of

patent medicines are recognized, and their use discountenanced.

"*Ninth.*—A Board of Arbitration, consisting of five physicians and five druggists, shall be appointed, who shall subscribe to these rules. This Board shall hear all complaints against any subscriber to these rules for their violation, and shall decide disputes."

There is hardly a section of the above which does not announce something that is impracticable, meaningless, or (as in section six) in direct opposition to judicial decision. Druggists always prescribe a little. Doctors certainly can and will dispense medicines if they find it better for their patient. In fact, the poor patient, who is really the main thing after all, seems to be quite forgotten in the above ridiculous production. When doctor and druggist feel obliged to meet together in order to formulate the rules for dividing the spoils, things have come to a very bad pass.

THE COLLEGE OF MIDWIFERY.

In our last number we called attention to the disreputable announcement which this institution had made, and also published the confidential card that accompanied the circular-letter. We also directed attention to the fact that this extraordinary action of the College tended to do an injury to the Censors, Drs. Mundé and Dawson. We have since received a letter from those gentlemen, in which they make it known that they had resigned *unconditionally* on the 8th of January, immediately after receiving the objectionable proposition. (See p. 80.) These gentlemen thus have, with credit to themselves, severed completely their connection with the organization. But are the resignations of Drs. O'Reilly and Alsdorf equally *unconditional?* If so, why do they still maintain their connection with the Infirmary and Dispensary? Perhaps Dr. O'Reilly or Dr. Alsdorf will inform the profession concerning the exact origin of the card offering commissions on cases or students sent to either the College or the Infirmary.

THE RISK OF PRESCRIBING STIMULANTS IN KANSAS.

The laws of Kansas do not allow the prescription of liquors by physicians except under circumstances of extreme need, and the physician has to take the risk of a jury's deciding against him on this point.

A case of this kind came before one of the courts of that State not long since under rather amusing circumstances. A person who was fond of beer went to a physician claiming to be sick, and after an examination a prescription for two bottles of beer was written out. The patient obtained the beer, returned to the office of the physician, and then upon the latter's invitation the two went to a neighboring restaurant, regaled themselves upon some oysters and the two bottles of beer, each drinking one. After this they attended a party together, remained a while, and then returned to the physician's office, and after an hour or two of conversation the patient went home.

These facts were brought out before the jury together with the testimony of the physician, that he had acted in good faith and believed the beer to be the proper remedy. Under these circumstances the question was submitted to the jury; and it is not a matter of great surprise that they found the physician guilty of a violation of the statute.

THE HOSPITAL COLLECTIONS.

The funds obtained through the Hospital Saturday and Sunday collections are not, at date of writing, entirely in, but sufficiently full reports are published to give an idea of what this year's work has accomplished. Up to January 15th there had been received $28,471.49 from all sources.

Unless some unexpected additions are received, this sum, though considerable, is disappointing, for it shows that there has been a steady decline in the receipts from these collections from $44,000 in 1879; $33,000 in 1882, to the present amount; and this has occurred despite the most earnest efforts of the Hospital Fund Committee.

The total amount given by the churches this year, according to the published figures, is not far from $14,000, and is considerably less than the amount ($18,000) given last year.

As before, the Episcopalian churches take the lead, giving more than all the others together, viz.: about $8,000. The Presbyterian churches have given a little more than they did last year. The Methodist churches last year contributed a paltry $204; this year the sum is between one and two thousand dollars.

The Baptists ought to be, of all denominations, most ashamed of themselves. Though numerically one of the most prosperous sects, their total contributions to the hospitals are less than $200, so far as the figures now published show.

The synagogues did not give very much this year. Full reports as to the trade and private collections will be given later.

News of the Week.

Medical Society of the State of New York.—The titles of papers, printed in the order of their reception, to be placed before the Business Committee of the Medical Society of the State of New York, at the opening of the seventy-eighth annual meeting, February 5, 1884, are as follows:

1, Malignant Lymph-Adenoma, with Cases, Dr. L. S. Pilcher, Brooklyn; 2, Dysmenorrhœa; its Treatment by Dilatation, Dr. W. W. Potter, Buffalo; 3, Operation for Closure of the Hard and Soft Palate, with Results, Dr. A. Vanderveer, Albany; 4, Value of Electricity in Diagnosis, Dr. L. E. Felton, Potsdam; 5, The Treatment of Suppurative Otitis in Children, Dr. S. Sexton, New York City; 6, A Case of Sympathetic Serous Iritis, with Remarks, Dr. D. Webster, New York City; 7, Strangulated Hernia, with Reports of Five Cases Treated by Operation, Dr. J. Chapman, Medina; 8, Two Unusual Cases in Obstetrical Practice, Dr. W. C. Wey, Elmira; 9, A New Method of Partial Extirpation of the Cancerous Uterus, Dr. E. Van de Warker, Syracuse; 10, Two Cases of Poisoning by Tansy, Dr. W. Woodward, Big Flats; 11, Hæmaturia; 12, Two Cases of Extra-Uterine Pregnancy; 13, Two Cases of Rupture of the Heart, Dr. T. H. Squire, Elmira; 14, Management of Face Presentation, Dr. E. L. Partridge, New York City; 15, Morbid

Somnolence, Dr. C. L. Dana, New York City; 16, An Operation for Correcting Deformity of the Auricle, Dr. O. D. Pomeroy, New York City; 17, Rheumatic Joint Lesions of Children, Dr. V. P. Gibney, New York City; 18, Biographical Sketch of the Late Dr. G. W. Bradford, Dr. C. Green, Homer; 19, Orbital Cellulitis, Dr. T. R. Pooley, New York City; 20, Biographical Sketch of the Late Dr. J. F. Jenkins, Dr. G. J. Fisher, Sing Sing; 21, Poisoning by Potassium Chlorate, Dr. G. B. Fowler, New York City; 22, Spontaneous Pyæmia, Dr. J. B. Todd, Parish; 23, The Establishment of Hospitals in Small Cities, Dr. E. H. Parker, Poughkeepsie; 24, House Sanitation—as it is and as it should be, Dr. W. F. Sheehan, Rochester; 25, Croup as Distinguished from Diphtheria, Dr. A. G. Crittenden, Clifton Springs; 26, The Medical Society of the State of New York in its Relation to Sanitary Science and the Public Health, Dr. E. Harris, Albany; 27, A Plea for the Pharmacopœia, Dr. L. Johnson, New York City; 28, Canalization as Applied to Amputation of the Female Breast, to Insure Primary Union under One Dressing, Dr. A. G. Gerster, New York City; 29, On Foerster's Method of Ripening Cataract, Dr. W. F. Mittendorf, New York City. In accordance with the by-laws, authors of papers must arrange with the Business Committee both as to the hour when the papers can be presented, and as to the time to be consumed in reading. ALEXANDER HUTCHINS, M.D., President.

The Business Committee will be appointed at the morning session of the first day of the meeting. The subject of the Anniversary Address will be "The Reciprocal Attitude of the Medical Profession to the Community."

SAFETY FOR THERMOMETERS.—Mr. Albert A. Weiss, an instrument-maker in this city, writes that the ordinary fever thermometer can be protected, and at the same time prevented from receiving injury if it falls out of the pocket, by having a screw-head attached to one end, which fastens the glass rod within a metallic case that is secured to the vest or coat by means of a chain and safety-pin.

DR. HENRY S. NORRIS has been appointed one of the assistants to the Chair of Gynecology held by Dr. Hunter in the New York Polyclinic.

DR. CHAMBERLAIN'S PAPER ON MALPOSITION OF THE UTERUS.—In the report of the discussion on this paper, which appeared in THE RECORD for January 5th, Dr. Mundé was accidentally made to say that "there is another displacement which is not mentioned very much, but which produces symptoms, the chief of which is sterility. It is a combination of retroversion and *retro*-flexion." It should have been "retroversion and ANTE-flexion." In the next paragraph Dr. Mundé is reported as having said that "few anteversions depend upon contraction of the lower folds of the utero-sacral ligaments." It should have been, "*a* few anteversions depend," etc.

A CHARTER FOR A NEW (?) MEDICAL COLLEGE REFUSED.—The regents of the University of the State of New York on January 11, 1884, refused to grant a charter to the United States College of Medicine and Surgery of New York City.

COMPULSORY EXAMINATION OF A FEMALE PLAINTIFF IN AN ACCIDENT CASE.—A case in this State was recently commented on where the court refused to order a compulsory examination of a female plaintiff in an accident case, to see whether she had not some other ailment besides the hurt caused by the accident.

A case involving the right of the court to order a medical examination is presented in one of the Western States, but under circumstances entirely different from that mentioned above. In this latter case there was a permanent injury to the eyes, and no medical examination had been had at any time, and the court held that it had the right to order such examination.

ACTIVE MEDICAL FATHERS.—We are enabled to add to our honored list of old physicians, who are still in practice, the following gentlemen: Wm. N. Blakeman, aged seventy-eight; Joel Foster, aged eighty-one; James Knight, aged seventy-three; A. S. Purdy, aged seventy-five; S. A. Purdy, aged seventy-two; G. A. Sabine, aged seventy-four. Let the younger men take courage, and "learn to labor and to wait."

THE PROPOSED POST-GRADUATE SCHOOL IN BALTIMORE has been organized, and goes by the name of the Baltimore Policlinic. We observe that it spells its name correctly, *i.e.*, with an "i."

GLANDERS has appeared again in Illinois.

A NEUROLOGICAL SOCIETY is to be organized in Philadelphia.

THE NEW YORK PATHOLOGICAL SOCIETY.—The proceedings of this society have been translated into French and appear in the *Journal de Médecine de Paris*.

A MEDICAL SOCIETY FOR BRITISH MEDICAL OFFICERS has been organized at Woolwich.

A PHYSICIAN IN DISGRACE.—Dr. G. H. Greeley, the Syracuse physician who has been arrested for forgery, was not a man of any standing in the regular profession, as evidenced by the Green Book.

THE NEW YORK POST-GRADUATE MEDICAL SCHOOL will remove to its new quarters No. 226 East Twentieth Street, on or about February 1st. The new building has all the facilities necessary for hospital purposes, and it is the intention of the Faculty to intimately combine bedside practice with the ordinary teaching of the school. Sixteen thousand patients were treated under the auspices of the school during the year ending November 1, 1883, and one hundred and forty physicians matriculated. About ninety physicians have matriculated since September 1, 1883.

Dr. William Oliver Moore has been appointed Professor of Eye and Ear Diseases in the New York Post-Graduate Medical School.

THE SUIT AGAINST DR. DAVID WEBSTER, brought against him as President of the New York County Medical Society by a person whom he had caused to be arrested for practising without a license, came on this week. The judge instructed the jury to bring in a verdict for the defendant, which was done.

THE COLLECTIONS FOR THE BROOKLYN HOSPITALS amounted to $4,604.50, which is $250 more than was received last year.

A Raid on Quacks in Chicago.—Under the direction of the State Board of Health of Illinois, the Chicago police opened war against the "specialists" and quack doctors last week. A number of detectives with a patrol wagon raided the office of a "Doctor" J. R. Williams, and captured not only the proprietor but also two wagon loads of obscene pamphlets and cheap books. These were all burned in the furnace at one of the police stations, where the "doctor," who was unable to procure bail, was locked up. The warrant sworn out by the detectives charges Williams with circulating obscene literature. In addition to his stock the officers found a lot of obscene publications belonging to Lucas R. Williams, better known as "Dr. Lucas," a brother of the arrested specialist.

A Gold Medal has been awarded to Mr. Ayerst H. Hooker, an Englishman, residing in Egypt, for his heroic efforts in attending the sick and fighting disease during last summer's cholera epidemic.

Aurum Vegetabile is the attractive euphemism for "pipitzahuate," a Mexican drug much esteemed for its cathartic properties. According to Carl Moir there are many varieties of the plant (botanical name *Perezia*) in America.

The Medical Society of the State of Pennsylvania.—The annual meeting of this Society will be held at Philadelphia on May 14th, 15th, and 16th, 1884, in the Assembly Room of the Union League, Broad and Walnut Streets. The President's reception and the entertainment by the Philadelphia County Medical Society will be held on the evening of May 14th, at the Pennsylvania Academy of the Fine Arts, Broad and Arch Streets. The by-laws require the programme of the meeting to be printed and distributed at least one month before the date of the meeting; and no voluntary paper is allowed to occupy more than twenty minutes in its reading. Notice is hereby given that all those who wish to present papers should send the full title and a short abstract of the same to the Committee on Arrangements on or before March 1, 1884, in order that a varied and attractive programme may be prepared. No paper will be selected for a position upon the programme of the meeting unless an abstract has previously been seen by the committee. By order of the committee, John B. Roberts, Chairman, 1118 Arch Street, Philadelphia.

The Prizes of the Academie de Médecine.—The recipients of these prizes and the amounts bestowed are as follows: Académie Prize (1,000 fr.), "Generalized Arterial Atheroma, and its Influence upon Nutrition," awarded to Dr. Hippolyte Martin. Portal Prize (2,000 fr.), "The Lymphatic System from a Pathological Point of View," to Dr. A. Poulet. Bernard de Civrieux Prize (2,000 fr.), "The Causes of Locomotor Ataxia," to MM. L. Landouzy and G. Ballet. Capuron Prize (2,000 fr.), "The Lochia in Normal and Pathological States," to M. Dr. Eustache, of Lille. Barbier Prize (4,000 fr.), to be awarded for the discovery of cures for diseases heretofore thought incurable; such as epilepsy, cancer, etc., awarded to Dr. Willems, of Belgium, for his works upon inoculation of pleuro-pneumonia. Godard Prize (1,500 fr.), divided between M. Leloir, of Paris, and MM. Feltz and Ritter, of Nancy. Desportes Prize (2,000 fr.), not awarded. The money, however, was given as an "encouragement" to three competitors. Buignet Prize (1,500 fr.), not awarded. Orfila Prize (4,000 fr.), not awarded. Itard Prize (3,000 fr.). This prize was divided between Dr. Sanné, for his work on diphtheria, and Dr. Paul Latteux, for his manual of microscopical technique. Fabret Prize (1,500 fr.), "Vertigo with Delirium," to Dr. Paul Garnier. Saint-Sager Prize, not awarded. Saint-Paul Prize (25,000 fr.), offered for a specific against diphtheria. Five hundred francs were given as an encouragement to Dr. Letour for his essay. Infantile Hygiene Prize (1,000 fr.), divided between three competitors. A large number of gold, silver, and bronze medals was also distributed.

New York Ophthalmological Society.—At the nineteenth annual meeting held on Monday evening, January 14th, the following officers were elected for the ensuing year: *President*—Dr. David Webster; *Vice-President*—Dr. C. I. Kipp (of Newark, N. J.); *Secretary and Treasurer*—Dr. James L. Minor.

American Pork *vs.* German and French Wines.—Retaliatory measures have been proposed to be carried out by the enactment of a law by Congress which would so vitally affect the wine market as to drive out the German and French products of the vine. A boom in discrimination in quality can be raised with equal ease, and would be more justifiable than that which has excluded from their markets one of our staple products. The old saying, "You kick my dog, I'll kick your cat," holds a principle which may be applied, wisely or otherwise, in more extensive fields than the domestic circle.

Guarding Against the Ingress of Contagious Diseases.—The health officer of this port, Dr. William M. Smith, in an open letter to the *New York Times* says, it has come to his knowledge that holders of rags in Egypt propose to ship them to the United States, and therefore he notifies all persons interested that evidence of the thorough disinfection of such rags will be required before they will be permitted to pass this quarantine. He further informs all interested parties that he is in a position to be notified of all shipments from Egyptian ports, direct or otherwise, of this article of commerce.

Yellow Fever in the City.—A tobacco merchant of this city returned from a visit to Cuba on January 7th. Next day he was taken ill, and the disease was pronounced to be yellow fever. No quarantine was attempted. The patient died on the 12th inst.

The Bill to Establish a Medical Faculty of the University of the State of New York was introduced into the Assembly on January 14th, by Mr. Howe, of New York.

American Pork in Germany.—An interview with Professor Virchow was announced by cable to the *Herald*, January 14th, in which it is stated that this eminent pathologist condemns as utterly illogical, unnecessary, and unjustifiable from sanitary reasons, the present prohibition against American pork in Germany and France. He further says that no cases of trichinæ in American pork have been proved to exist in Germany for ten years.

CONSULAR HEALTH NOTES.—The United States Consul at Callao states that the yellow fever made its appearance on board the mail steamer Lima while *en route* from Panama to Callao, and that three deaths occurred on board. No other cases appeared after her arrival, but she was put in close quarantine, and every precaution taken to prevent the disease reaching the city. He adds that on account of the advent of hot weather much anxiety is felt.

The United States Consul at Buenos Ayres reports the landing at that place of two cases of yellow fever from a French steamer which touched at Rio, and that Montevideo has established a ten days' quarantine against Buenos Ayres for that reason, although the latter place has a quarantine of three days against all Brazilian ports.

The report of the total number of cases and deaths at Pensacola Navy Yard and Reservation during the yellow fever epidemic of last year is as follows: Pensacola Navy Yard, 15 cases, 6 deaths; Woolsey and Warrenton, 152 cases, 27 deaths; total, 167 cases, 33 deaths.

The report of Sanitary Inspector Burgess, of the Marine Hospital Service, shows that there were 578 deaths from all causes at Havana, Cuba, during the year just closed, of which 53 were from yellow fever, 11 typhoid fever, 13 malarial fever, 4 diphtheria, 4 croup, and 1 from glanders. Forty-three of the yellow fever deaths were among citizens and the merchant marine, and the remainder among the army and navy. As compared with last year there were 535 deaths from all causes, and but 24 from yellow fever. During the week ending January 4, 1884, there were 7 fatal cases of yellow fever, against 4 for the same period last year.

The United States Consul at the island of Malta states that quarantine on all arrivals from Egypt has been established, as follows: Ten days' quarantine in case of a healthy voyage exceeding ten days; fifteen days for a voyage less than ten days; twenty days' strict quarantine in cases of the least suspicion of disease on board, or of unsatisfactory hygienic condition of vessel, whatever be the duration of the voyage. The *sfratto* against passengers from Egypt arriving in healthy vessels is abolished.

BILLS BEFORE CONGRESS.—The following bills have been introduced in Congress, which are of interest to our readers: Senate Bill 982, introduced by Senator Miller, of New York, for the maintenance and support of the Marine Hospital Service, read twice by title and referred to the Committee on Commerce. House Bill 2,697, introduced by Mr. Randall, of Pennsylvania, to prepare and publish a National Pharmacopœia for the United States, which was read a first and second time, referred to the Committee on Ways and Means, and ordered to be printed. House Bill 2,785, introduced by Mr. Young, of Tennessee, to amend an act entitled "An act to prevent the introduction of infectious and contagious disease in the United States, and to establish a National Board of Health," which was read a first and second time, referred to the Committee on the Public Health, and ordered to be printed.

INTERNATIONAL MEDICAL CONGRESS.—M. de Bille, Danish Minister to the United States, has transmitted to the Secretary of State a letter of invitation from the General Organizing Committee of the International Medical Congress, and says: "I am officially informed by my Government that the Eighth International Congress for Medical Science will meet at Copenhagen in the days from the 10th to the 16th of August, 1884. The different States having generally been represented, at the preceding meetings of this Congress by official delegates, his Danish Majesty's Government entertains the hope that this may also be the case at the impending Congress. Conforming to the wish expressed by the Board of Organization, I am instructed to assure the Government of the United States that the Danish Government would highly appreciate the fact of its being officially represented at the Congress, and to invite you to inform me, in good time, of the names of the delegates to whom may be entrusted this distinguished mission."

COLLEGE OF PHYSICIANS OF PHILADELPHIA.—The annual meeting of the College of Physicians of Philadelphia was held on January 2d, when the following officers were elected: *President*—Dr. Samuel Lewis; *Vice-President*—Dr. J. M. DaCosta; *Secretary*—Dr. Richard A. Cleeman; *Treasurer*—Dr. Charles S. Wurst.

THE PHILADELPHIA COUNTY MEDICAL SOCIETY held its annual meeting on January 2d, and elected the following members: *President*—Dr. Wm. M. Welch; *Vice-Presidents*—Drs. Wm. S. Forbes and S. R. Knight; *Recording Secretary*—Dr. Henry Leffman; *Corresponding Secretary*—Dr. M. S. French; *Treasurer*—Dr. L. K. Baldwin; *Censor*—Dr. H. St. Clair Ash. Two female physicians who applied for membership were rejected by a two-thirds vote.

THE PALACE OF THE EX-EMPRESS EUGENIE at Marseilles, which she was obliged to give back to the city, has been turned into a medical school for the training of army medical officers and others. Four hundred thousand dollars has been voted for its use by the municipal government. Drs. D'Arsonval, Malassez, Masé, and others are to be attached to the school.

NEW JOURNALS.—The *Iowa State Medical Reporter* is the title of a new monthly medical journal, of excellent appearance, published at Des Moines, and edited by Dr. F. E. Cruttenden, and others.

The *Texas Courier-Record of Medicine* is the name of a new and enterprising monthly, edited by Drs. F. E. Daniel and W. B. Brooks, and published at Fort Worth, Texas. It announces that Dr. John A. Wyeth is a member of the Faculty of the Philadelphia Polyclinic and College for Graduates in Medicine. Such is fame.

TROUBLE IN A ST. LOUIS MEDICAL COLLEGE.—For some time there has been trouble brewing in the St. Louis College of Physicians and Surgeons, between the Board of Trustees and Dean on the one hand, and the Faculty and Students on the other. According to statements in the daily press, the college was started five years ago under the auspices of prominent Democratic politicians, and Col. James O. Broadhead, now member of Congress from St. Louis, was elected President, and William Hyde, editor of the *Republican*, Vice-President, while almost all the other Directors are shining lights in the local Democratic fold. A telegram to the New York

Times says: "The attempt to combine pathology and politics has been unsuccessful from the beginning, and while the Dean of the Faculty, Dr. Bauer, and Dr. Hazard, a medical member of the Executive Committee, have drawn their salaries regularly, the other professors have been put off from time to time with unwritten promises to pay. This, together with a lordly way the Directors had of disregarding any request made by the Faculty or students, has led to open revolt. On January 14th, eight of the Professors and all the students struck, and the Faculty now consists of three doctors and five students, whom they have persuaded to return to their studies. The college is burdened with a debt of $7,000, and unless some compromise is reached soon the institution will go under. The trouble is aggravated by the fact that both the President and Vice-President of the college were at the time of the revolt in Washington."

NEW MARINE HOSPITAL AT BALTIMORE.—The commissioner appointed to select a site for the proposed Marine Hospital of Baltimore has secured six acres on Remington Avenue, in the northwestern part of the city, at a cost of $20,000, leaving $80,000 of the appropriation for buildings. The site is considered a very desirable one. It is expected that work will be commenced on the buildings as soon as spring opens.

THE FREE HOSPITAL FOR WOMEN, Boston, Mass., has recently received a gift of $35,000 from the wife of Lieutenant-Governor Oliver Ames.

LONGEVITY OF ENGLISH DOCTORS.—*The Lancet* publishes a list of thirty-two English medical men who died during the past year, and who all attained extreme old age. Seven were over ninety years of age, and fourteen had passed their eighty-sixth birth-day.

GOVERNOR WALLER, of Connecticut, in his annual message to the General Assembly, submitted on the 9th inst., calls attention to the fact that the Insane Asylum at Middletown, with its annex and cottages, is overtasked. With provision for 775 patients, the average number the past year was 854. Another building, to accommodate 250 patients, it is suggested, would meet the demand for ten years.

THE ANNUAL MEETING OF THE NATIONAL ASSOCIATION FOR THE PROTECTION OF THE INSANE AND THE PREVENTION OF INSANITY will be held in Philadelphia on January 22d.

WHY SHOULD THE SPIRIT OF MORTAL BE PROUD?—This familiar conundrum, with its rhythmical sequelæ, has been printed by a poetically inclined contemporary, *The Southern Clinic*. The esteemed editor endorses it as very beautiful and new. He is right only in the first particular. The poem was written by William Knox, in the early part of this century.

SCIENTIFIC ENTERPRISE.—Dr. Arning, late assistant to Professor Neisser, of Breslau, has been sent to Honolulu, in order to study the pathology of leprosy, and especially to investigate the question of the *rôle* played by the bacillus of leprosy in causing the disease.

A CREMATORY IN NEW YORK.—The report is abroad again that a company has been organized for the purpose of building a crematory in or near this city.

A MEDICAL LAW FOR OHIO.—An agitation has begun in Ohio for the passage of a law appointing a State Board of Medical Examiners. The Central Ohio Medical Society, at its meeting in December last, earnestly urged this measure, which is being advocated by some of the medical journals, among them the *Columbus Medical Journal*. We trust that the movement will be successful, and that advantage will be taken of the experience of other States when the bill is framed. This has not always been done.

THE SIMS MEMORIAL FUND.

To the Medical Profession and Others throughout the World:

The great achievements of Dr. J. Marion Sims call for some more lasting testimonial than obituaries and eulogies. To him medical science is indebted for much brilliant and original work, especially in gynecological surgery. Those who have been benefited by his teachings and new operations, and such as have had the direct advantage of his personal skill are among the first to recognize and acknowledge this debt.

To him is due the honor of giving the first strong impulse to the study of gynecological surgery in America.

It is believed that the medical profession everywhere, the vast number of women who owe their relief from suffering directly to him, and those who realize the benefits he first made possible, will gladly unite thus to honor the man through whose original and inventive genius such blessings have been conferred upon humanity.

At the suggestion of many friends, therefore, the subjoined committee has been organized, and it is proposed that a suitable monument be erected to his memory in the city of New York.

To this end the active co-operation of the medical profession and the many other friends of Dr. Sims throughout the world is respectfully solicited. Contributions of one dollar and upward may be forwarded to the journal which has been constituted the treasury of this fund—THE MEDICAL RECORD, New York.

FORDYCE BARKER, M.D., *Chairman.*
GEORGE F. SHRADY, M.D., *Secretary.*

THOMAS ADDIS EMMET, M.D., New York.
T. GAILLARD THOMAS, M.D., "
WILLIAM T. LUSK, M.D., "
WILLIAM M. POLK, M.D., "
PAUL F. MUNDÉ, M.D., "
S. O. VANDER POEL, M.D., "
FRANK P. FOSTER, M.D., "
SAMUEL D. GROSS, M.D., Philadelphia, Pa.
WILLIAM GOODELL, M.D., "
JAMES R. CHADWICK, M.D., Boston, Mass.
WILLIAM H. BYFORD, M.D., Chicago, Ill.
A. REEVES JACKSON, M. D., "
THAD. A. REAMY, M.D., Cincinnati, O.
C. D. PALMER, M.D., "
GEORGE J. ENGELMANN, M.D., St. Louis, Mo.
R. BEVERLEY COLE, M.D., San Francisco, Cal.
H. F. CAMPBELL, M.D., Augusta, Ga.
R. B. MAURY, M.D., Memphis, Tenn.
E. S. LEWIS, M.D., New Orleans, La.
J. C. SEARCY, M.D., Tuskaloosa, Ala.
R. A. KINLOCH, M.D., Charleston, S. C.
HUNTER MAGUIRE, M.D., Richmond, Va.
S. C. BUSEY, M.D., Washington, D. C.
HARVEY L. BYRD, M.D., Baltimore, Md.
W. J. HOWARD, M.D., "

Other names may be added to this list from time to time.

Reports of Societies.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, December 26, 1883.

GEORGE F. SHRADY, M.D., PRESIDENT, IN THE CHAIR.

DILATATION OF THE STOMACH.

DR. J. C. PETERS narrated a case as follows: A woman, forty-five years of age, had had symptoms referable to the stomach for about two years, and now there is evident dilatation of the organ to the extent of occupying a large portion of the abdominal cavity. Food and fluid are retained two or three days, and then vomited by the wash-basinful. There is a small tumor, in the region of the pylorus possibly, but its exact location cannot be determined on account of the distortion of the stomach and the presence of ascites. Emaciation is very marked, but there is no cachexia. Turning the patient from one side to the other is very distressing on account of the quantity of fluid retained in the stomach. As is commonly the case, the vomited matter contains sarcinæ. It was the third case which Dr. Peters had seen, and all occurring in women. In one case there was cancer of the head of the pancreas, and he thought it probable that something of the kind existed in the present instance.

DR. VAN GIESON had had one case in which there was dilatation of the stomach without co-existing malignant disease. At the autopsy, the walls of the stomach were found to be extremely thin, and there was no complicating condition whatever. The dilatation was probably due to paralysis or degeneration of the muscular coat.

DR. AMIDON had in two cases introduced an œsophageal tube of large calibre, and attached a stomach-pump, but was unable to remove any of the gastric contents. In one case he washed the stomach out, but obtained nothing except ropy mucus.

DR. VAN GIESON said Dr. Da Costa had reported three or four cases in which he had washed out the contents of the stomach, and kept up the irrigation for an hour with great benefit to the patient.

ARE FLOATING KIDNEYS USUALLY HEALTHY?

DR. R. W. AMIDON referred to a case of supposed locomotor ataxia with pupils simply immobile to light, but responding to accommodative force, an indefinite history of pain in the legs, a peculiar gait, exaggerated tendon reflex, and besides, a peculiar starting all over whenever he hit the patient's tendon. The patient also complained of pain in the region of the sternum and scapula, and in the right side. There was an area of percussion dulness in the right side, in the region where enlargement of the liver occurs, which disappeared somewhat when the patient took the recumbent posture. There was atrophy of both optic nerves. The query arose whether the case, instead of being one of locomotor ataxy, was not one of floating kidney with the retinitis of Bright's disease, and the pains rheumatic or neuralgic in character. The question then arose, what is the usual condition of floating kidneys, healthy or diseased?

DR. VAN GIESON referred to one case which he had had under observation five or six years, and the patient had never presented any evidence of renal disease and seemed to be perfectly healthy.

DR. GEO. L. PEABODY remarked that floating kidney is very often in the condition of hydronephrosis. It seemed to him, on account of the rarity of true floating kidney, that we are hardly prepared to generalize concerning it. He had examined about three thousand kidneys and had not yet met with a floating kidney. He had seen kidneys which were movable to the extent of four inches behind the peritoneum, but these could scarcely be called floating kidneys in a pathological sense.

EPITHELIOMA OF THE PENIS—ENDARTERITIS OBLITERANS.

DR. PEABODY presented a specimen of epithelioma of the penis, and the chief point of interest was the existence, in the tissue of the epithelioma, of endarteritis obliterans, a condition which he had observed in three specimens of epithelioma. The specimen was removed from a man seventy years of age, who one year ago first noticed a small pimple on the left side and lower segment of the foreskin, and about three months ago it ulcerated and developed the ordinary gross appearance of well-marked epithelioma. Dr. Peabody presented microscopic sections which showed endarteritis obliterans distinctly, and remarked that he had found the lesion in a number of undoubted non-syphilitic cases. The lesion consisted in fully formed connective tissue growing from the intima of the blood-vessel, while the wall of the vessel seems to be in all respects normal.

DR. AMIDON said he saw this lesion in 1878 and 1879, in the New York Hospital, in a case of sarcoma of the humerus, but at that time he did not recognize its true character. One of the femoral arteries also was obliterated by the same growth.

ABSCESSES (?) OF THE KIDNEY.

DR. BEVERLEY ROBINSON presented the kidneys removed from the body of a woman, who gave the following history, according to the notes of Dr. G. C. Weiss, House Physician, Second Medical Division, Charity Hospital: Bridget M——, twenty-one years of age, single, born in Ireland, and a domestic, was admitted to the waiting ward August 31, 1883. About three months advanced in pregnancy, and somewhat emaciated. She complained of incontinence and painful micturition. A few days subsequent to her admission the patient began to have irregular sweatings and chills with obstinate vomiting, and she lost flesh rapidly. Her urine contained a large quantity of pus.

October 21st.—The patient weighs about eighty pounds. Vomiting has persisted despite all remedies administered for its control. There is pain on pressure over the region of the kidneys. The urine contains pus in large quantity and the patient is jaundiced.

October 24th.—The patient had a miscarriage and lost about two ounces of blood. The placenta was delivered at the end of about forty minutes by manual assistance and expression. In the evening of the same day the patient seemed to be doing well, considering her general condition.

October 25th.—The patient vomited once during the night. Died from exhaustion at 8.30 A.M.

The autopsy revealed œdema of the lungs, normal heart, a liver weighing six and seven-eighths pounds, congested and fatty (?), kidneys weighing nine ounces each, with slightly adherent capsule, and surface studded with miliary abscesses. Section of the kidneys also showed abscesses varying in size from that of a millet seed to a silver three-cent piece. The pelves were filled with pus. The uterus was well contracted, and neither shreds of membranes nor portions of placenta remained. The bladder was normal.

The character of the abscesses was obscure, and Dr. Robinson asked that the specimen be referred to the Committee on Microscopy. It was so referred.

DR. PEABODY thought that, in their present condition, the miliary nodules on the surface of the kidney presented the apperance of tubercles rather than abscesses.

DR. ROBINSON also presented a specimen of

PERFORATION OF THE LUNG IN PHTHISIS PULMONALIS,

followed by hydro-pneumothorax. It was accompanied by the following history, furnished by Dr. Samuel T. King, Assistant Senior Physician at St. Luke's Hospital:

Asmus S——, twenty-four years of age, single, a German, and a paper-hanger, was admitted to the hospital October 6, 1883. He gave the ordinary history of phthisis, which continued until December 15th, when the patient died at 3.45 A.M.

The autopsy was made by Dr. F. Ferguson. Diaphragm on right side was at seventh rib, on left side at fifth rib. Thorax: On section of right thoracic wall gas escapes from right pleural cavity, the right lung completely collapsed and the right pleural cavity contains thirty-eight ounces of clear serum; there are bands of old loose adhesions at the apex of right lung and spinal column. Base of left lung adherent to diaphragm. Heart normal in size; tissue anæmic and contains fat; valves competent. Lungs: Right—There is an opening in the upper portion of the lower lobe in the axillary line, about one-eighth inch in diameter, communicating with a cavity beneath. This opening is valvular, the valve so arranged as to prevent material entering from the pleural cavity. The upper and middle lobes contain many small cavities surrounded with pigmented fibrous tissue, many small tubercles and cheesy nodules. The lung floats below the surface of the water. Left—Permeated by miliary tubercles and small cavities, especially the upper lobe.

Dr. Robinson remarked that the hydro-pneumothorax was discovered only at autopsy. With reference to treatment, when recognized during life, there is a difference of opinion concerning the propriety of puncturing the chest-walls for the purpose of removing the fluid. He thought the weight of evidence was in favor of allowing it to remain rather than to open the chest.

PYONEPHROSIS.

Dr. John A. Wyeth presented the kidneys, with the ureters and the bladder, removed from the body of a man twenty-six years of age, who had been in good health up to two years ago, when he came to Dr. Wyeth complaining of hemorrhoids, which he cured by operation. About three months afterward the patient complained of frequent desire to pass his urine—was obliged to get up three or four times during the night for the first six months. After that, rises of temperature developed, the patient emaciated, and with frequent micturition continued through the next six months. Examination of the chest revealed slight consolidation at the apices of the lungs.

The autopsy revealed pyonephrosis and chronic cystitis. The pelvis of one of the kidneys was enormously dilated.

Dr. Wyeth raised the question with regard to the propriety of performing cystotomy in such cases. Sir Henry Thompson had spoken favorably of it.

Dr. Van Gieson referred to a paper read by Dr. J. C. Hutchinson, of Brooklyn, in which was given a summary of cases, and his conclusions were favorable to the operation; the median operation for lithotomy with dilatation of the prostate.

Dr. Wyeth said he should perform the lateral operation, because the median does not give so good drainage.

Dr. Van Gieson thought that was the very reason why Dr. Hutchinson preferred the median operation.

Dr. Garrish referred to a case in which he operated as for stone in the bladder, and the patient made a good recovery.

Dr. Peabody spoke of the recognized value of the operation in women. But the question propounded involves a graver question than the surgical procedure, and that is the possibility of eliminating the condition of the kidneys found in Dr. Wyeth's specimen. He thought that, at present, we do not possess clinical means by which we are able to say positively whether there is or is not a normal condition of the kidneys.

The President thought that if kidney disease was present the operation was contra-indicated.

Dr. Wyeth did not see why this condition should contra-indicate the operation, as the patient might better have the rest afforded by the operation than the distress without, inasmuch as the condition of the kidney is an inevitably fatal one.

The Society then went into executive session.

THE PRACTITIONERS' SOCIETY OF NEW YORK.

Stated Meeting, December 5, 1883.

Dr. Samuel Sexton, President, *pro tem.*, in the Chair.

Dr. William T. Bull read the paper of the evening, entitled

THE INTRAVENOUS INJECTION OF SALINE SOLUTIONS.

[The paper is published in full in The Record, January 5, 1884.]

The paper being open for discussion, Dr. A. B. Ball called attention to the fact that by the ordinary method of giving those injections the temperature of the fluid must necessarily fall considerably before the operation is finished.

Dr. Beverley Robinson asked as to the danger of air getting into the veins by the method Dr. Bull described.

Dr. Bull did not think that any air would get in, although even if a little did enter it would do no harm.

In answer to a query why the central end of the artery was injected instead of the peripheral, Dr. Bull said that the reason was that injection of fluid into the peripheral end had been attended with serious consequences, such as embolism and gangrene. It required a great deal of force also to inject the fluid into the peripheral end, while there is no difficulty in injecting the central end.

With regard to a query put by Dr. A. A. Smith, as to the difficulty of finding a distended vein and inserting a canula, he had had no trouble in the cases referred to. He had, however, experienced difficulty at other times, because he had generally delayed the operation of transfusion to the last moment, when the patient was exsanguined. With the present method there was no need of waiting and there should be no trouble generally in finding a distended vein. He thought it important to examine both arms. The speaker knew of only two cases where arterial transfusion had done harm.

Dr. A. A. Smith had performed transfusion of defibrinated blood and had been fortunate enough in both cases to reach the vein, though with some difficulty.

Dr. William M. Polk said that his experience had been like that of Dr. Smith's. It was with some difficulty that he could get into the vein, and doubtless because he postponed the operation too long.

Dr. Polk thought that the use of saline solutions offered many advantages over that of defibrinated blood, and he was disposed to accept it as a substitute for the latter.

As regards the value of

TRANSFUSION AFTER POST-PARTUM HEMORRHAGE,

he had seen but two cases of post-partum hemorrhage in his life, and in these the hemorrhage was easily controlled by the ordinary means.

Dr. C. L. Dana asked if there was any advantage in the intravenous injection of saline solutions over the injection of milk. The latter fluid had been highly recommended some years ago, but not much was said of it now. He had seen transfusion of milk practised in one case of severe hemorrhage from wound of the femoral artery. Intravenous injections were indicated here if at any time, and milk was employed, but without success; the patient was temporarily improved but soon after became worse again and died. He questioned if saline solutions could do any more than milk, unless perhaps it were shown that larger quantities of the former could be safely injected.

Dr. Bull said that it was as hard to get milk that was pure and fresh as it was to get blood. The use of milk had for this reason, in part at least, been abandoned. The specific gravity of milk and of the saline solutions was different also.

Dr. R. F. Weir said that his experience with the intravenous injection of saline solutions was confined to two

cases. Although these both terminated fatally, yet in one of them there was decided temporary improvement. In cases where transfusion was indicated he would recommend the use of saline solutions.

Dr. Weir related the

HISTORY OF TWO CASES OF LAPAROTOMY FOR INTESTINAL OBSTRUCTION.

[These cases will be reported in full in THE RECORD.]

In the discussion, DR. J. B. HUNTER asked what was Dr. Weir's method of closing the abdominal wound.

DR. WEIR said that he used half a dozen deep sutures, closing the pouting in the abdominal wall with finer superficial sutures.

DR. HUNTER had been surprised to see a good many cases of imperfect union of the abdominal walls, this showing itself some years later. It was due, he thought, to imperfect union of the peritoneum. He had been accustomed, of late years, to put in the deep silver wires, then close the peritoneum with catgut sutures. You make sure in that way of preventing the passage of anything into the peritoneal cavity. In a large number of cases treated thus there had been perfect union of the abdominal walls by first intention.

DR. WEIR said that he was struck, when he saw Lawson Tait operate, with the extreme

SHORTNESS OF HIS INCISIONS.

In some cases they were only one and a half inch, in others two to two and a half. Tait laid great stress upon this, not for the safety of the operation, but for the future comfort of the patient. He closed the wound in he ordinary way.

DR. HUNTER said that that point was dwelt upon very emphatically by Spencer Wells, who asserted that the shorter the incision the less the danger from peritonitis.

DR. POLK said that there was great difference of opinion among good authorities as to whether the peritoneal surfaces should be closed or not. The question is one of a great deal of importance in ordinary laparotomy. In cases of ovarian tumors the peritoneum generally is easily brought together, but in other cases like those of Dr. Weir's, or where the patient is fat, it is a different matter, and he was satisfied that the surfaces were never brought together. Even when the surfaces are thus opposed, the points of suture furnish opportunities for pus to enter the peritoneal cavity.

Dr. Polk said that he lost a patient about six months ago just from his determination to get the peritoneal surfaces together. The woman was very fat. The incisions were made in the usual way, and the ovarian tumor removed without any trouble. It was a very simple and uncomplicated operation. After he had put in all the stitches except the two lower ones, he slipped in his fingers and found that the peritoneal surfaces were not together at all. He attempted to bring them together with catgut sutures, but the minute he made any tension the catgut would simply tear out. The manipulation, he believed, aided in part in causing the formation of an abscess, which broke into the abdominal cavity and killed the patient. He believed, therefore, that where peritoneal suture can be done easily it was advisable, otherwise not.

DR. WEIR said that Tait quotes some seventy cases, without any death, where the sutures were put in in the ordinary way.

DR. A. A. SMITH thought that it did not make any difference in the result whether the peritoneum was sewed together or not, aside from the especial manipulation which that operation required.

DR. G. F. SHRADY reported a

CASE OF DIPHTHERITIC CAST OF THE BLADDER PASSED THROUGH A PERINEAL OPENING.

The patient, a male, aged forty-five, was admitted to the Presbyterian Hospital suffering from extravasation of urine, the result of rupture of a strictured urethra. The accident occurred during a fit of intoxication two days before. The usual operation was at once performed for his relief. He progressed favorably for a month, during which time a large slough of the perineal tissues separated. Soon after he was suddenly seized with retention, which was occasioned by what appeared to be valvular plugging of the perineal opening. A catheter was passed through the wound, and a considerable quantity of foul-smelling urine was evacuated. A few hours after this, during an attack of vesical tenesmus, a foreign substance protruded itself through the perineal opening, and was removed by the patient. This mass proved to be a complete cast of the lining membrane of the bladder. During the time when this exudation had been forming there had been no constitutional symptoms, nor did any show themselves later. The mass was so much decomposed that no satisfactory microscopical examination could be made. It was quite evident that it was exudative in character rather than a slough of the mucous membrane proper, for the reason that there were none of the constitutional symptoms present indicating the graver trouble. The patient made a perfect recovery without a repetition of the exudation.

Dr. Shrady believed that this accident was a very rare one in the male, and, as far as he knew to the contrary, it was unique under the circumstances mentioned.

DR. WEIR said he had seen such things in the female, but not in the male.

DR. HUNTER said that the late Dr. Peaslee had once presented a specimen of a membranous cast of the rectum, which he had obtained from a woman who had had dysentery previously, but did not have it at the time when the cast was passed.

DR. BALL said that the passage of more or less perfect fibrinous casts from the rectum was not uncommon in women. He believed that they came from higher up than the rectum.

Correspondence.

OUR LONDON LETTER.

(From our Special Correspondent.)

SIR ANDREW CLARK ON CATHETER-FEVER—PROFESSOR FLOWER—PNEUMOTHORAX AND PHTHISIS—THE HAFFENDEN-HARDIE CASE.

LONDON, December 24, 1883.

THE subject of so-called "catheter-fever" has again been brought forward by Sir Andrew Clark, who delivered an address on this topic at the last meeting of the Medical Society of London, December 17th. An interesting *résumé* of the history of the subject was given. Sir Andrew Clark's contention is that the commencement of catheter life may be followed by fever which, occurring in patients apparently in good health, may speedily prove fatal without the occurrence of any morbid lesions discoverable post-mortem. He noticed that in his cases the urine was of low specific gravity. The patients were middle-aged men who had for some time suffered from chronic bladder trouble, due to the incomplete emptying of that viscus.

An interesting discussion followed. Sir Henry Thompson objected to the term "catheter-fever" and maintained that the condition, although supervening at the commencement of "catheter life," was due to the fact that the use of the catheter had been postponed too long, and "had the catheter been used when there were only six or eight ounces left in the bladder, we should have heard nothing of catheter-fever."

Sir Andrew Clark's views evidently did not meet with unqualified approval, especially as regards the pathology of the disease. Had they been brought forward by a less distinguished physician they would probably have attracted little attention.

Mr. Savory referred to the importance of ascertaining the state of the kidneys before performing serious operations, and especially of estimating the quantity of urea excreted. He said that "with regard to serious operations, or in considerable shock to the patient, I would rather have thoroughly sound kidneys on my side than even a sound heart or lungs."

In replying, Sir Andrew explained that he did not object to the use of the catheter and agreed with Sir Henry Thompson, that many of the difficulties arose from its not being used early enough. He coincided with Mr. Savory as to the importance attaching to the condition of the kidney when surgical operations were contemplated, and said it was a point he had brought forward twenty-eight years ago; and on various occasionssince, under the term of "renal inadequacy," he had pointed out the great peril of performing surgical operations in such cases. The discussion is to be resumed at a subsequent meeting of the Society.

It is rumored that Professor Flower is to succeed Professor Owen at the Natural History Museum, South Kensington. It may be remembered that Mr. Flower succeeded Professor Owen in the post he now holds, viz., Curator of the Museum at the Royal College of Surgeons.

An interesting discussion took place at the Clinical Society on December 14th, on pneumothorax. Sir Andrew Clark mentioned some cases of phthisis in which the progress of the disease was checked for a time by the presence of pneumothorax.

The Haffenden-Hardie case has ended in a verdict of "Not Guilty," after a very brief deliberation of the jury. It may be remembered that the late Mr. Haffenden (who committed suicide) was charged with procuring abortion on Mrs. Hardie, the other defendant. The prosecution was got up by a neighboring practitioner, who had been called in to the case in Mr. Haffenden's absence. The evidence seems to show that Mrs. Hardie was aware or suspected that she was pregnant. Mr. Haffenden, however, from her statements, was led to think she was suffering from a uterine tumor, for which he gave ergot and employed the uterine sound. A miscarriage followed. There is no reason to suppose that Mr. Haffenden endeavored to procure abortion or had an idea the patient was pregnant until afterwards, and probably no aspersion would ever have been cast upon him but for the conduct of a professional brother and for the precipitate action of the Public Prosecutor, who certainly should have taken the advice of an expert before sanctioning the prosecution of a medical man of unblemished reputation on such a charge. The Public Prosecutor seems to have acted equally unwisely in the Bower-Keates case. Indeed, if his conduct in these two cases is an average, the sooner his office is abolished the better.

Treatment of Cerebro-spinal Fever.—Dr. J. Lewis Smith sends us the following interesting private letter which he received from a correspondent, Dr. Robert B. Smith, of Tioga, Pa.: "In 1872," he writes, "we passed through an epidemic of the disease, with an average mortality of about thirty-eight per cent. A singular feature of our epidemic was the number of cases of sudden death. Quite a number of my patients at about the eighth or tenth day, who to all appearances were doing reasonably well, would be suddenly taken worse and die within thirty minutes from the time that any change was noticed in their condition—they died without convulsion. I could only account for it on the supposition that the inflammation had invaded the medulla and disturbed the pneumogastric. As the epidemic progressed, the physicians here used opium more freely, some to the extent of continued narcosis, and the death-rate diminished. Either the disease had expended its intense force, or the opium treatment had a happy effect."

THE SIMS MEMORIAL FUND.

To the Editor of The Medical Record.

Sir: A nation's history is perpetuated in the names of her illustrious men, and the history and fame of her great and good are beacons which light the kindling spark of genius in its ambition.

The peaceful triumphs of art may better wear the crowning laurel of fame, than any wrested from political faction or torn from circumstance in sanguinary war.

Dr. J. Marion Sims was a hero, though of gentle mien and character.

He dared to do for his race what had never before been formulated in such a manner as to attract the attention and labors of others in his profession, men who have, by the inspiration of his genius, won meritorious fame.

Who will not do himself honor in raising his hand to inscribe the name of J. Marion Sims upon the altar of immortal fame, that future generations may know, as we who are living and knew him in the flesh do well know, that his merited fame was as broad as the civilized world; that his character was gentle, his mind pure, his friendships generous, his sympathies responsive.

There can be none upon whose lips ever dwelt the endearing name of mother who will say that Sims' noble life was not one of unswerving devotion to the amelioration of women's sufferings.

Few have ever been so loved by their professional brethren, throughout the length and breadth of the land, and few have had in them combined the qualities of greatness with so many lovable traits of character.

As an earnest of the desire to see a monument erected in Central Park to the memory and fame of Dr. J. Marion Sims, a contribution of one hundred dollars, each, from Dr. R. S. Sutton, Mr. George Westinghouse, Jr., and your correspondent, will be handed to such a committee as has been wisely suggested in your journal of January 5, 1884, by Professor S. D. Gross, of Philadelphia.

With most respectful consideration, believe me,

Yours truly,

W. H. Daly.

Pittsburgh, January 8, 1884.

[It will be seen by the No. for January 12th that a committee has been organized, and that The Medical Record is ready to receive subscriptions to the fund.—Ed.]

THE NEW YORK COLLEGE OF MIDWIFERY, ITS PAMPHLET ENTITLED "WOMAN'S WORK," AND ITS "CONFIDENTIAL" CIRCULAR TO THE PROFESSION AND LAITY.

To the Editor of The Medical Record.

Sir: When the "College of Midwifery" was organized we accepted the offices of censors, believing the institution and its object worthy of our recognition and assistance. Our connection with the institution had been but brief, when we already found it necessary to criticise severely some things in its organization and management. Our position as censors gave us no voices in the conduct of the institution, our duties being simply to be present at and assist in the examinations.

The title and character of the pamphlet mentioned above met with our disapproval when first seen after it was in print; and the circular and "confidential" card which have been distributed to the profession and laity, issued wholly without our knowledge, and only accidentally seen by us *to-day*, meet with our most emphatic disapprobation to such a degree as to determine us to dissolve our connection with the institution, which we have done by forwarding our unconditional resignations to-day.

B. F. Dawson, M.D.
Paul F. Mundé, M.D.

January 8, 1884.

CONCERNING NEWPORT AND ITS SUPPOSED "MILD WINTER CLIMATE."

To The Editor of The Medical Record.

Sir: The Record of December 22d has an article on the "Mild Winter Climate of Newport, R. I.," etc., by Dr. H. R. Storer, in which he first refers to his previous publications on the same subjects, and states that "they conflicted with another person's preconceived theory." This manner of referring to gentlemen would ordinarily call for silence only, but for the sake of the cause of the climato-therapy of consumption, permit me once more to hold Dr. Storer's bait up to the gaze of the profession.

In the article referred to, Dr. Storer attempts only to establish a comparatively mild winter temperature for Newport, based upon the fauna and flora, the southern characters of which prove the proximity and influence of the Gulf Stream. My arraignment in answer is as follows:

First.—In all previous articles Dr. Storer distinctly referred to consumptives as those likely to be benefited, and not of "delicate people and convalescents." His appeal to me by letter at that time was in favor of a "mild climate" nearer home for persons of more or less limited means. Now the appeal is for "delicate people," and the recommendation that of "mildness," when previously it was claimed that Newport possessed equability of temperature in common with southern latitudes.

Second.—Any one who pretends to know anything of climatic effects knows that there are only three elements to be considered, namely: *dryness, equability of temperature, and elevation.* Heat and cold, as such, are individual sensations, felt more keenly in the presence of moisture than in a relatively dry atmosphere, and are dependent upon the season of the year. These facts are not "preconceived notions," but are the accepted a, b, c, of climatology.

Third.—In my answer to Dr. Storer, in the *Boston Medical and Surgical Journal*, I demonstrated that Newport had no elevation, excessive moisture instead of dryness, and a beastly inequability of temperature. To tell us now that in January Newport is a third of a degree warmer than New York is certainly funny. One-third of a degree of difference in temperature in moist climates! What a blessing!

Finally, let me sum up. No one objects to an advertisement of Newport as having a mild climate with one-third of a degree in its favor. But many more scientific men than Dr. Storer do object to having the subject of climato-therapy relegated back to the darkness of the middle ages.

Very truly yours,

J. Hilgard Tyndale, M.D.

38 East Tenth Street.

"PREVENTION OF PUERPERAL FEVER."

To the Editor of The Medical Record.

Sir: In view of the great danger to the puerperal woman from infection through the genital canal, and the *very great* difficulty experienced in employing proper prophylactic measures, as so clearly elucidated in the papers recently read before different medical societies in New York, I would like to suggest through your valuable paper that the Academy appoint a committee to investigate the advisability of instructing the "gentler sex" (and if thought necessary make it compulsory) to wear an antiseptic pad over the vulva from the inception of the catamenia until the menopause, to be non-removable without strict antiseptic precautions, or under the carbolic spray.

Yours in science,

Seth Hill.

P.S.—This suggestion does not arise from a theoretical standpoint by any means, for I have a patient under such treatment, and as she escaped the fever I think it a move in the right direction.

Stepney, Conn., December 18, 1883.

SHAKESPEARE AND APOPLECTIC SEIZURES.

To the Editor of The Medical Record.

Sir: In The Record of the 12th inst. one of your contributors uses this language: "Three drops of croton-oil were laid on the old man's tongue and his temples were liberally festooned with leeches till I could not but think of the poet's exclamation, 'Shake not thy gory locks at me.'" The poet never exclaimed in this style, if Shakespeare is the poet from whose writings the quotation is intended to be. In "Macbeth," Act III., Scene 4, these lines occur: "Thou canst not say I did it: never shake thy gory locks at me."

Probably no author is so often improperly quoted as Shakespeare. Only a few days ago a medical friend, in the course of a conversation, remarked, "Discretion is the better part of valor." Falstaff, "King Henry IV.," Act V., Scene 5, says: "The better part of valor is—discretion; in the which better part I have saved my life."

HYDROGEN DIOXIDE (H_2O_2) IN THE TREATMENT OF VENEREAL DISEASES AND AS A TEST FOR PUS.

To the Editor of The Medical Record.

Sir: My object in this brief article is to call attention to the use of hydrogen dioxide (H_2O_2), or oxygenated water, in the treatment of venereal diseases, as a local application for venereal sores, and as an injection in gonorrhœa; also as a positive and simple test for the presence of pus in urine or any organic fluid.

Although hydrogen dioxide, or hydrogen peroxide as it is generally called, has long been known as a chemical compound, yet it has had no rank as a therapeutical agent until lately. It has been brought to notice as a bleaching agent for hair, changing black hair to a light color, by reason of its great power of destroying vegetable coloring matter.

My attention was particularly directed to this agent by the report of M. Miguel, of the Observatoire de Montsourir, in which he shows the minimum quantity of the different antiseptics capable of preventing the development of germs and bacteria. In these experiments H_2O_2 is recognized as being the most powerful destroyer of germ-life. In this city its value has been recognized by dentists as a mouth-wash, it being introduced into this city by A. W. Harlan, D.D.S.

A few drops of peroxide of hydrogen brought in contact with pus will produce an effervescence similar to that caused by hydrochloric acid on a carbonate. The action continues until all the pus is destroyed, so that it cannot be recognized microscopically.

My first experiments with this agent were as a test for pus in urine, it is the simplest and most delicate test, the smallest quantity of pus being easily detected.

As an application for venereal sores I recognize its chief value in the fact that it answers every purpose of the caustics and escharotics used in the treatment of these diseases, *at the same time being painless.* When applied to a suppurating sore, a rapid effervescence commences and continues until the sore is perfectly cleansed, leaving the tissue beneath ready to be healed by any simple application. My observations with this remedy extend over twenty cases of chancroid, all of which were relieved in a short time without the use of caustics or iodoform, and without pain to the patient. My treatment consists in applying H_2O_2 to the surface of the sore until all effervescence ceases, then cleansing the parts with plain water and applying a mixture of vin aromatic, glycerin, and rose-water in the following proportions: Vin aromatic, ʒ ij.; glycerin, ʒ j.; rose water, ʒ v. In the majority of cases the healing process commences at once, and in a few days the sore is entirely well.

In the treatment of chancre it cleanses the surface and

puts it in condition to heal under proper constitutional treatment. As an injection for gonorrhœa, alternating with an astringent injection, its use has proved most satisfactory. Later I propose to give a detailed statement of its use in thirty cases of chancroid and ten of gonorrhœa treated in my practice. Peroxide of hydrogen is destined to become an important agent in the treatment of any suppurating sore, not only on account of its power to destroy pus, but because of its great antiseptic properties.

ROBERT W. STEGER, M.D.

126 STATE STREET, CHICAGO, ILL.,
October 14, 1883.

AN APPARENTLY NEGLECTED PRECAUTION IN THORACENTESIS.

TO THE EDITOR OF THE MEDICAL RECORD.

DEAR SIR: The following notes may prove interesting, and perhaps instructive, to some of your readers: M. L——, boilermaker, fifty years of age, consulted me, November 30th, at the Manhattan Eye and Ear Hospital, Department of Nervous Diseases, concerning stiffness and pain in the shoulders and back. One year before he had been exposed to wet and cold. Then, and ever since, he had suffered from pain in the upper dorsal spine and under both scapulæ, more under the right. These pains were worse on motion, in stooping, at night and in bad weather. He had water-brash, no appetite, and was constipated. Had never had any fever, chills, sweats, or cough to speak of. He was incapacitated from work by the pain any movement caused him, not from weakness or general debility. His general nutrition and appearance were so good that his wife thought him shamming and lazy, and deserted him. He spent all his money in useless treatment, and at last turned up with only a watch and chain at a doctor's office on —— Street. At the first visit he lost his watch and chain, after a few more he began to loose his teeth, and after six months he lost confidence.

Wishing to examine the ailing parts I made him strip, whichhe did with difficulty. I immediately noticed a bulging of the lower part of the right chest, which from ordinary physical signs I judged contained fluid. A tracing of the chest, taken with a cyrtometer, showed a bulging on the right side most marked at the posterior border of the axillary line. The right chest, at the level of the ensiform cartilage, had a circumference three centimetres greater than the left. The right shoulder was raised and the right chest expanded less than the left. The vocal fremitus was about normal on the right side except in the lower axillary and inframammary space where it was absent. There was dulness on percussion on the right side at the seventh intercostal space in the axillary line, at the sixth intercostal space in the nipple line. Below this line there was almost complete flatness. This line of dulness and flatness shifted according to the position of the patient. In the region of flatness there was no vocal resonance. On two occasions I withdrew from his right thoracic cavity, with a large hypodermic syringe, some clear serum. The last time I aspirated him successfully in the presence of Drs. Birdsall, Adam, Muzzy, Ray, Swift, Mead, and Sarlabous.

I sent this patient to two hospitals for treatment. At one he was refused admission by the examining interne as a case of locomotor ataxia, and when sent back with a polite request that he be carefully examined he was admitted, aspirated, and discharged the next day, house-staff and attending physicians agreeing that the chest contained no fluid. At the other hospital he was admitted but no fluid was found.

Now the failure to obtain fluid in this case depended upon ignorance or neglect of a point which I thought everybody knew. The mistake consisted in introducing the needle to its full length, exhausting the syringe and getting no fluid, from the mere reason that in all probability the point of the needle was imbedded in the *lung*.

The way in which I invariably got fluid was to introduce the needle to its full length, then exhaust the syringe and, keeping up the exhaust, slowly withdraw the needle till a point was at length reached where a sudden gush of serum occurred, showing that a thin stratum of fluid lay between two thickened pluviæ or between the chest-wall and a lung bound down by adhesions.

It was a matter of surprise to me that the presence of fluid, even in small amount, could not be detected by ordinary physical signs (a line of flatness changing its level by a change of position), and also that aspiration by such skilled hands should have so signally failed.

R. W. AMIDON, M.D.

NEW YORK.

MEDICAL PRACTICE IN MEXICO.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR: Malignant intermittent or pernicious fever is not as frequent here, in Northeastern Mexico, as it is in the lower valley of the Mississippi and some parts of Texas, nor does it appear to me quite as terrible in its aspect or as fatal in its effects as in those parts of the Southern States where I have practised before. Of course, the disease is one of those that fill even the experienced practitioner with dismay, but I have had better success in this city in the treatment of it than I had in Texas or Louisiana. This may be due in part to my strictly avoiding the use of blisters, which involve the loss of hours by our waiting for their effect, which hours are invaluable in such cases where the fatal termination may take place at any moment. Long ago this had suggested itself to me, and I substituted accordingly the application of nearly boiling hot water to the feet and hands. But even this is often not readily obtained, and consequently I sought and found the equivalent in the application of Paquelin's thermo-cautery. This is ready for use in a few minutes and its effect as a revulsive always sure. The first time I resorted to it was in a very trying case. I found the man, who had, as I was then informed, for several days already suffered from intermittent fever, in a comatose condition. The persons present told me that he had had a severe rigor with convulsions and afterward a high fever, during which the convulsive movements continued and loss of consciousness ensued. This impressed them with the idea that it was rather more than common chills and fever, and so they sent for several medical men without meeting any until they finally found me. As there was no hot water, and really nothing at hand to use in such a contingency, I hurried home, got my thermo-cautery, and after I returned put it in working order as rapidly as possible. I applied the button at once to the calves of the legs, along the lumbar vertebræ and the soles of the feet. To my great satisfaction a short time after, and while I was reflecting yet whether I ought to use it more extensively or not, the man gave signs of suffering pain, and with one hand felt toward one of the points I had touched with the platina button. The rest of the treatment it is hardly necessary to dwell upon. Full doses of quinine by the mouth and enemas of the same in solution introduced high up into the rectum by means of an elastic catheter attached to a syringe, cold to the head, etc., were about all that was employed. My patient safely weathered the dangerous point, and I have had since then an opportunity to follow the same treatment repeatedly and almost invariably with good result. The burns of the button are small and in my cases always healed readily without ulcerating. As the instrument is in these cases, not to destroy any thing, it should be applied at each point for an instant only. This treatment may seem too heroic at first sight, but in reality its effects are not as severe as those of large blisters, which may cause a protracted ulceration

and other disagreeable consequences, to be mentioned further on.

Remittent fever is much more frequent here than pernicious, and I have had during several years a large number of cases to attend to. Many of these were quite formidable and required a good deal of watching and judicious management. But I believe I do not go too far if I say that in no cases of severe sickness the assiduous attendance of the physician can do more good and finds itself better rewarded than in the grave cases of this kind. My principal guide is the thermometer. Observing carefully the rising and falling of the temperature, I direct my remedies accordingly. My old friend and teacher, the late Professor Fenner, of New Orleans, who had an experience in this class of diseases rarely equalled, expressed it as his opinion that remittent fevers would not occur so frequently if the preceding intermittent was cut short in time. My own experience has taught me the correctness of that excellent gentleman's views. If, at the beginning, the intermittent is cut short, a remittent will not develop itself, even though in the surroundings of the patient cases of remittent exist at the time. I have had at least two examples here which illustrated this to my satisfaction. The difficulty about these remittents is their tendency to prolong themselves, to become more serious from day to day, until they gradually present the picture of a true typhoid. In fact there is no difference to be observed between these two diseases after a certain lapse of time, say from fifteen to twenty days, and the question is hard enough to decide where and when remittent ceases and typhoid begins. I do not wish this to be understood as applying to all cases of remittents. There are always many of a much less serious order, and there is even a difference in the character of the disease at different parts of the year and in different years.

I mentioned above that I rely principally on the indications of the thermometer. Whenever I find the temperature above 39.5 C. I abstain from the administration of quinine and limit myself to the use of a strong decoction of yellow Peruvian bark (1½ oz. to 8 oz. water), in which from three to four drachms of benzoate of soda are dissolved, a tablespoonful every hour. If, after the lapse of six hours, the temperature has not diminished, I resort to cold packing, which almost invariably reduces the heat to the extent of 1 or 1.5 degree. As soon as I can observe a well-marked decrease of temperature I give a full dose of quinine, which is repeated after four hours, while the decoction of bark is continued every hour. Generally by this means the fever gradually resumes an intermittent character again and is treated as such, but often it does not make such slow progress and convalescence rapidly and fairly sets in. I always examine the stools with litmus paper. If the reaction is alkaline, I substitute the diluted muriatic acid for the benzoate of soda or give the quinine in solution with diluted sulphuric acid. In all cases it is of the first importance to evacuate the bowels before beginning any treatment at all and often it requires more than one purgative to produce this. The slightest stagnation in the intestinal tube will often baffle all efforts to overcome these remittents speedily. Quinine, if given at a high temperature, is liable to produce unpleasant symptoms. Repeatedly it has occurred to me that a semi-comatose state or great excitement followed its administration. For this reason I give the decoction of bark, etc., which gradually reduces the temperature and prepares matters for the final administration of the quinine, which serves to fortify the position gained against further attacks and guards it against a recurrence. This treatment has but rarely disappointed me. Blisters I have not used in this disease for a number of years past, and I honestly believe that I owe in part to this non-interference of mine my favorable results.

Typhus I have never seen here and I might almost say the same of typhoid fever. Of the latter I had only few cases, and these were managed with more ease and ran their course more mildly than at other places where I practised before. I do not include in this the cases of remittents which became typhoid.

A very formidable disease, which is not very unfrequent here and is very much dreaded, is the bilious typhoid, described by Griesinger in his celebrated work on infectious diseases. I have followed his treatment with good success and, although not all my patients recovered, the majority of them came through safely. The people of this part of the country are justly afraid of this disease, which erroneously they call malignant jaundice (icterus gravis). But it is not the icterus gravis such as is met with in other countries, as there is always considerable enlargement of the spleen and no atrophy of the liver.

I have above given expression to the opinion that my success in treating fevers in Southern countries had become much better since I had ceased to resort to the old time-honored use of blisters. I go so far as to say that I think the time has come to limit their use, in the same way as the profession in our days has reduced venesection to certain indications only. The question is an open one, which of the two remedies may do more harm, if indiscriminately applied in such diseases as infectious or eruptive fevers. In this country the popular belief exists that a fever patient is lost if suppression of urine takes place. The people are so accustomed to this result that they look upon it as a logical sequence. Nor is this opinion erroneous. I know that there is no symptom more alarming to me in yellow fever, typhoid, remittent, or bilious typhoid. The kidneys are naturally seriously involved in these fevers with a high temperature without intermission. If another irritant is added at this juncture in the shape of blisters, the functions of the kidneys must inevitably become more seriously impaired and even suspended, the disintegration of these important glands having really begun. Thus a dangerous disease, but which might have been managed so as to lead to a favorable result, is now complicated with albuminuria and the life threatened by uræmia or œdema cerebri. It looks like quite an innocent matter to use one or several good-sized blisters, because everybody did and does apply them, and often the physician and the public think everything safe if it has taken well, while in reality the danger has only been increased by it. For these reasons I candidly give it as my opinion that their use should be limited to certain indications only, in the same way as has been done with venesection and the excessive use of calomel.

EDMUND GOLDMANN, M.D.

MONTERREY, MEXICO, October 15, 1883.

THE MICROCOCCI OF ALOPECIA form the latest addition to the pathogenetic bacteria. Dr. O. Lassar considers that baldness is spread by hair-dressers who employ combs and brushes on their customers, one after another, without any regular cleansing of these articles after they are used. Hair which fell from heads in which dandruff occurred plentifully were collected and rubbed up with vaseline. The ointment thus made was applied to the fur of rabbits or white mice. Soon baldness made rapid progress in the parts so treated. Vaseline alone produced no effect.

AGED MOTHERS.—Dr. S. A. Evans, of Conway, N. H., writes: "Having noticed, in THE RECORD of December 8th, 'the case of a woman who gave birth to a child when forty-eight years of age,' reported in the *British Med. Jour.*, I am moved to report two cases which occurred some years since, in this town, of women *fifty* years old, who gave birth to living children. The facts are well known and can be proved beyond doubt. Both cases occurred in the same family connection, and the history of the family for several generations shows it to have been remarkably prolific."

Medical Items.

CONTAGIOUS DISEASES—WEEKLY STATEMENT.—Report of cases and deaths from contagious diseases reported to the Sanitary Bureau, Health Department, for the week ending January 12, 1884:

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Cases.								
January 5, 1884.....	0	8	76	2	60	58	0	0
January 12, 1884.....	0	4	68	4	49	33	0	0
Deaths.								
January 5, 1884.....	0	5	4	0	5	14	0	0
January 12, 1884.....	0	1	11	5	7	10	0	0

LUNACY IN FRANCE.—In France there are now 103 lunatic asylums, 61 of which are public and 42 private. Nine of the total are exclusively for men and 14 for women, the rest being for both sexes. During the last fifteen years a considerable increase in lunacy has occurred in France. There were 34,000 lunatics in 1868, and there are now 60,000.

SOMETHING TO BE REMEMBERED NEXT SUMMER.—Decoction of quassia, applied to mosquito bites, constitutes an excellent remedy for the relief of the itching and irritation. When applied to the exposed portions of the body it is also a preservative against the attacks of these very disagreeable and annoying insects.—*Journal de Médicine de Paris*, November 17, 1883.

LABOR AT THE END OF THE SEVENTH MONTH WITHOUT RUPTURE OF THE FŒTAL SAC.—Dr. E. F. Cowger, of Riverton, Ia., sends us the report of a case as follows: "I was called September 8, 1876, to attend a healthy young woman in her second confinement. She, the day previous, while stepping out at a door slipped and fell quite a distance, and in a few minutes after her fall she noticed a flow of blood from the vagina. During the following night labor pains set in and I saw her about noon the next day. She claimed that she was only at the end of the seventh month, and, from circumstances not necessary here to relate, and from the development of the child, I believe her statements were true. Having quite a distance to go I only got into the room when the child was born, with placenta and with the membranes intact. Thinking the child dead, and judging from the appearance of the mother that she needed my immediate attention, I first examined into her condition, and while making this examination I noticed that the sac moved. I at once ruptured the membranes, cut the cord, but did not then tie it, and removed the child, which I noticed was making some effort to breathe, wrapped it up warm, and laid it out of the way, and then attended to the mother who was flooding quite freely. After making her as comfortable as possible, I went to the child and to my surprise found it breathing, though very feeble. I left instructions with the nurse not to disturb it until I again saw it, and to keep it warm. I called the next day, when we washed and dressed the babe, and to-day he is a fine large healthy boy. The mother made a good recovery."

THE AMOUNT OF CARBONIC ACID generated by lights is thus represented: Electric lights, none; argand gas-burner, .46; flat-flame petroleum, .95; colza-oil light, 1; paraffine candle, 1.22, and tallow candle, 1.45. It has been remarked that the tallow candle, the oldest of these artificial lights, is not only the hottest but the most unhealthy.

UPHOLDING THE PATENT MEDICINE TRADE.—The druggists of Oneida, Madison, Herkimer, and Otsego Counties have formed an association for mutual protection in handling patent medicines. Each druggist pays twenty-five dollars on joining the association, and agrees not to sell any patent medicine below standard prices. The penalty for violating the agreement is forfeiture of the initiation fee and membership. The members of this druggists' union say that competition has rendered dealing in patent medicines unprofitable to all—including probably the customers.

THE TREATMENT OF THE PLACENTA AFTER DELIVERY.—Dr. W. P. Giddings, of Gardiner, Me., writes: "Noticing in your valuable journal of December 29th an article from the *Deutsche Med. Wochenschrift*, by Dr. Dohrn, on leaving the placenta for nature to remove, I am induced by it to add my strong endorsement of this method. In quite an extensive obstetric experience, I have adopted three several methods for the delivery of the placenta, viz.: following for the two first years of my professional life the one taught me by the late Prof. Buckingham, of Harvard, instruction to deliver *at once*, by compression and *gentle* traction upon the cord; second, Credé's; and last—and to my mind the best—leaving it to the natural efforts of the uterus. I always follow with my left hand the contracting womb as the child is expelled, to insure the *safe* contraction, then entrust it to the nurse or some competent person while I tie and separate the cord. Having disposed of the child, I again place my hand upon the uterus, to make sure it does not unduly relax, and await its efforts after a natural period of rest. During six years I have followed this plan with not a single accident, or a delay of more than twenty minutes, with a single exception, and that was thrown off at the expiration of fifty minutes with no other inconvenience than weary waiting. Contrary, however, to Dr. Dohrn's experience, I think a little *more* blood is lost than when Credé's method is adopted, but I have come to look upon that as a more natural and conservative principle, inasmuch as my patients have made more rapid recoveries than when the case was hurried. I will add that after delivery of the placenta, I *always* hold the uterus down until permanent contraction is secured."

THE INFLUENCE OF DIATHESIS UPON CONTAGION.—Dr. L. J. W. Lee, of Bridgeport, Conn., writes: "In perusing the inaugural address of Dr. S. Oakley Vander Poel, President of the New York County Medical Society, I was forcibly reminded of an incident which occurred in my practice some years ago in the Eastern District of Brooklyn, N. Y. The president, in speaking of pathological and clinical studies, also 'asks the doctors not to lose sight of those broader diathetic manifestations, which will, from the same apparent cause, produce different diseases in different persons.' I may perhaps not touch upon the identical idea of Dr. Vander Poel, yet my experience may be worth noting. In the course of my practice as above mentioned, I at one time had ten patients under treatment in one house, and nearly each one suffering from a different disease, seemingly taken from the one poisoned atmosphere. Among the number were three with confluent small-pox, one of a milder type, and one with varioloid. There were two with measles, one with varicella, one with typhoid fever; and one with remittent fever, of the malarial type."

TO CLEANSE THE GAIFFE BATTERY.—Dr. F. A. Burrall, of this city, writes: "I find that by putting salt and water into the cups of the Gaiffe battery, after they have been used, the yellow sulphate of binoxide of mercury is readily removed from them. This method is a good substitute for the vigorous brushing and scraping which are otherwise necessary. Those who use this convenient faradizer will, I think, appreciate the benefit of this suggestion."

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Original Articles.

SUBNORMAL TEMPERATURE IN CERTAIN MALARIAL AFFECTIONS.

BY J. W. STICKLER, M.D.,

ORANGE, N. J.

THE following cases, which although irregular as regards type, were ascertained to have a malarial origin, and which in their course were marked by a subnormal temperature, as they were all hospital cases, a statement of what was done for them, as well as of their physical condition from day to day, will most accurately present the cases to those who may read the article.

CASE I.—Thomas H——, sixty years of age; English; widower; moderate drinker. Condition when admitted to hospital: Pulse, 86; temp., 100⅘°; resp., 40. Thirsty, no appetite; unable to retain nourishment. Face flushed. Very restless. Urine: color, dark yellow; odor, natural; sp. gr., 1.010; reaction, faintly alkaline; precipitate of mucus, no albumen. Had a chill at 8 A.M.

September 7th.—9 A.M: Temp., 100°; pulse, 60; resp., 30. 2 P.M.: Temp., 103⅘°; pulse, 118; resp., 34. Face flushed. Very restless all the afternoon. At 10.10 P.M. took quinine, grs. x. Had frequent movements from bowels during evening, due to action of cathartic.

September 8th.—Slept very little during the night (of September 7th). Was troubled with nausea and vomiting when food was given. 9 A.M.: Temp., 96°; resp., 18; pulse, 18. 11.40 A.M.: Took quinine, grs. x. Temp. at 7 P.M., 99⅘°; pulse, 80; resp., 20. Very restless, pains in calves of legs and in left side.

September 9th.—7 A.M.: Temp., 97⅕°; pulse, 75; resp., 28. Quinine, grs. x., given at 3 A.M., repeated at 6 A.M. 6.30 P.M.: Temp., 100⅘°; pulse, 75; resp., 30. Perspiring freely, and constantly muttering.

September 10th.—7.15 A.M: Temp., 99°; pulse, 64; resp., 24. 11 A.M.: Temp., 98½°; pulse, 66; resp., 28. Ordered Warburg's tincture every three hours for one day.

September 11th.—7 A.M.: Temp., 97°; pulse, 58; resp., 24. Whiskey, ℥ ss. every three hours. 10 A.M.: Temp., 95°; pulse, 74; resp., 21. Says he feels warm, although his skin is cold to the touch. 7 P.M.: Temp., 97°; pulse, 68; resp., 24.

September 12th.—7 A.M.: Temp., 96°; pulse, 58; resp., 20. Warburg's tincture given t.i.d. 5 P.M.: Temp., 96°; pulse, 68; resp., 24. Feels much better.

September 13th.—8 A.M.: Temp., 97°; pulse, 68; resp., 24. 5 P.M.: Temp., 97⅘°; pulse, 65; resp., 16.

September 14th.—7 A.M.: Temp., 97°; pulse, 74; resp., 14. 10.30 A.M.: Temp., 98⅓°; pulse, 84; resp., 16. His condition was maintained at about the normal standard from last date.

CASE II.—John B——, fifty-three years of age; American; widower. In April, 1883, had an attack of croupous pneumonia. Has lived in a malarial district, and has had intermittent fever. For several days prior to admission into hospital, had quotidian intermittent fever. Chill attended with pain in the back. Appetite fair. Face shrunken and pale. Bowels loose and watery. Temp., 100⅘°; resp., 30; pulse, 76. Urine: odor, normal; color, straw; sp. gr., 1.012. Reaction, acid. No albumen. Ordered quinine, grs. x., to be repeated as occasion required.

September 10th.—10.45 A.M.: Temp., 96°⅘; pulse, 60; resp., 14. Had a small and partly formed alvine discharge. Feels the same as on other days when about to have a chill. At 4.30 P.M. had a severe chill, and immediately after it his temperature rose to 105⅘°.

September 11th.—7 A.M.: Temp., 96°; pulse, 52; resp., 13. In the afternoon had a profuse perspiration without chill. 7 P.M.: Temp., 97°; pulse, 68; resp., 17.

September 12th.—7 A.M.: Temp., 98⅕°; pulse, 74; resp., 22. No chill. Appetite good. 5 P.M.: Temp., 97½°; pulse, 68; resp., 17. Bowels moved. Has had whiskey, ℥ ss. every four hours.

September 13th.—8 A.M.: Temp., 98½°; pulse, 72; resp., 18. Had no chill during night. Complains of soreness in back and thighs.

September 14th.—10 A.M.: Temp., 98°; pulse, 72; resp., 17. Appetite good. Movement of bowels. 8 P.M.: Temp., 97°; pulse, 63; resp., 16. Well enough to go out into open air.

September 15th.—10 A.M.: Temp., 98½°; pulse, 68; resp., 16. Appetite increasing. General condition much improved. Made a rapid recovery.

CASE III.—Max C——, aged twenty-five years; Russian; single; hatter. Has always been healthy. Drinks moderately. Healthy in appearance. Has had for a few days quotidian intermittent fever. Urine: odor, natural; color, yellow; sp. gr., 1.010; reaction, acid; no albumen.

September 6th.—Temp., 98½°; pulse, 74; resp., 24. Ordered quinine, grs. x., at 7 and 10 A.M.

September 7th.—10.35 A.M.: Temp., 97°; pulse, 48; resp., 28. Complains of pain in left side. Quinine, grs. x., every four hours. 7.15 P.M.: Temp., 97⅕°; pulse, 54; resp., 32. Perspiring about face and neck; face cool.

September 8th.—7 A.M.: Temp., 96⅘°; pulse, 50; resp., 28. Pain in left side under ribs is most intense when sitting. 6.30 P.M.: Temp., 97°; pulse, 50; resp., 28. Quinine continued same as yesterday.

September 9th.—7 A.M.: Temp., 97⅘°; pulse, 58; resp., 28. No marked relief from pain in side. Headache and giddiness late in afternoon.

September 10th.—7 A.M.: Temp., 98°; pulse, 68; resp., 24. Pain in epigastric region, in right hip, and in right thorax.

September 10th.—7 A.M.: Temp., 98°; pulse, 68; resp., 24. Quinine has made him somewhat deaf. Quinine, grs. x., every three hours.

September 11th.—10.20 A.M.: Temp., 98⅘°; pulse, 72; resp., 28. Has sore throat. Pain has disappeared from side. 7 P.M.: Temp., 99°; pulse, 72; resp., 22. After this date made a good recovery.

CASE IV.—Carlo M——, aged twenty-five years; Italian; widower. Last August had fever, severe pain in head and abdomen. Had a paroxysm of intermittent fever every second day of week of admission into hospital. Urine: color, natural; odor, normal; reaction, acid; sp. gr., 1.018; no albumen.

October 12th.—7.30 P.M.: Temp., 97°; pulse, 80.

October 13th.—6.30 A.M.: Temp., 96⅘°; pulse, 68; resp., 24. 5 P.M.: Temp., 99⅘°; pulse, 80; resp., 24. Complains of pain in head, back, and calves of legs. Ordered quinine, grs. x.

October 14th.—7 A.M.: Temp., 97⅘°; pulse, 68; resp., 24. Still has pain in head and calves of legs. 5 P.M.: Temp., 99⅘°; pulse, 80; resp., 28.

October 15th.—Temp., 97⅕°; pulse, 64; resp., 20.

6 P.M.: Temp., 98⅘°; pulse, 80; resp., 20. Had quinine, grs. v., at 6, 10, and 2 o'clock.

October 16th.—6.30 A.M.: Temp., 98½°; pulse, 72; resp., 24. Complains most of pain in back and calves of legs. 6.30 P.M.: Temp., 98½°; pulse, 72; resp., 24. Warburg's tinct., ℥ ss. every four hours till ordered to be discontinued.

October 17th.—6.30 A.M.: Temp., 97⅘°; pulse, 72; resp., 24. Pain in calves of legs continues, but has none in head or back.

October 18th.—Feels much better. Improvement from this time progressive.

CASE V.—Michael G——, aged twenty-four; Irish. At time of entrance into hospital had quotidian intermittent fever. Had headache and vertigo almost constantly; pain through right shoulder. The dizziness has existed somewhat more than a month. Urine: natural odor; color, amber; sp. gr., 1.015; reaction, neutral; no albumen.

August 7th.—3 P.M.: Temp., 98°; pulse, 70; resp., 15. The temperature was taken after a hard chill. 5.30 P.M.: Temp., 97°; pulse, 70; resp., 19. Had quinine, grs. x., at 7 P.M., and ordered ten grains to be given at 6 o'clock the following morning.

August 8th.—7 A.M.: Temp., 96⅘°; pulse, 56; resp., 12. Had a severe chill at 8 A.M. 5 P.M.: Temp., 98½°. Has a persistent headache.

August 9th.—5 P.M.: Temp., 98½°; pulse, 78; resp., 24. Feels much stronger, has a good appetite, has no chills. No recurrence of intermittent paroxysms subsequently. Quinine in five-grain doses continued for several days.

Dr. Wunderlich states that in intermittent fever the temperature, after having reached 105.8°–106.7°, may fall to the normal or below it. He evidently refers to cases in which in the inter-paroxysmal periods there are absolutely no manifestations of disease.

There are, however, malarial disorders which intermit very imperfectly, there being constantly, till established convalescence, some evidence of active, progressive disease. Such was the character of the cases recorded, and while, no doubt, they are the analogues of many others, I am not aware that attention has been called to the fact that they present so uniformly a subnormal temperature as one of their characteristic features.

SUCCESSFUL AMPUTATION AT HIP-JOINT FOR ENORMOUS ENCHONDROMA OF THE FEMUR.

BY H. W. CARPENTER, M.D.,

ONEIDA, N. Y.

IT may be of interest to some of the many readers of THE MEDICAL RECORD, if I give a brief report of an interesting case of enchondroma of the femur which I had nearly two years since. The points of interest are the immense size of the growth and its successful removal.

Druitt mentions a case in which the tumor, after five years' growth, measured three feet in circumference.

My patient was an American by birth, a man aged forty, single. The family history dating from grand-parents showed a decidedly scrofulous taint. His habits of life were good, and till he was nearly thirty-two years of age he was a very industrious man, his work being mostly out of doors.

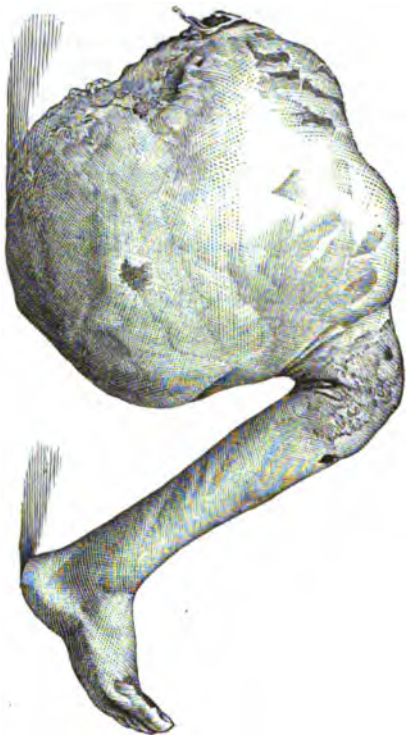
The history of the tumor dates back nearly ten years ago, to an injury received to the left thigh, while attempting to stop a runaway team. From this time the thigh began to enlarge, the growth being very gradual and accompanied with but little pain, inconveniencing the patient only by its size. It resisted all treatment, and patient became greatly emaciated and feeble; as a last resort he finally consented to amputation at the hip-joint. Accordingly, on January 29, 1882, with the assistance of Dr. Cragin, of the Oneida Community, and Drs. Lewis and Wilson, of Vernon, the operation was performed.

The tumor being so near the body, it was with great difficulty that I cut down and ligated the femoral artery, which I succeeded in doing just below Poupart's ligament. I also ligated the femoral vein to prevent the recurrent hemorrhage. A very short anterior flap was then made; the head of femur disarticulated, and a long posterior flap obtained; these flaps, being abundant to cover the stump nicely, were brought together and secured by stitches, adhesive plaster, and bandage.

Carbolic acid was not used during the operation, neither was a drainage-tube used in the dressing.

The subsequent dressing consisted in frequently washing the stump, and injecting into the wound a one to forty solution of carbolic acid.

On the ninth day the ligation came away from the artery. The flaps united nicely, and the stump was entirely healed in about five weeks after amputation. The patient improved rapidly in health and strength, and was able to walk about with crutches.



The tumor—shown in the cut—one week after the amputation weighed 94¼ pounds, and the patient weighed but 85 pounds.

In May of the same year, nearly four months after the operation, the patient took a severe cold which resulted in pneumonia of right lung. There was purulent infiltration, and death soon followed.

The principal points of interest in this case are: 1, the possibility of such a growth as a consequence of the scrofulous diathesis; 2, the immense size of the tumor; 3, the rapidity with which the stump healed; and 4, the comfort of and the improvement in the patient after its removal.

MADISON COUNTY, N. Y.

THE NEW YORK VETERINARY MEDICAL ASSOCIATION met January 4th at Cooper Institute and elected officers for 1884. Dr. R. W. Finlay was chosen President, Dr. L. V. Plageman First Vice-President, Dr. Ralph Ogle Second Vice-President, and Dr. B. C. Cattanach Third Vice-President; Dr. William D. Middleton, of Newburg, Treasurer; Dr. H. Holloway Recording Secretary, and Dr. John W. Jacobus Corresponding Secretary. Articles of incorporation have been filed with the Secretary of State and the County Clerk.

STATISTICS OF FOUR HUNDRED CASES OF RHEUMATISM.

By CHARLES H. MAY, M.D., New York.

Record of Histories of Cases.—*Continued from p. 62.*

Number of case.	Name.	Date of admission.	Sex.	Age.	Nativity.	Occupation.	Number of the attack.	Variety of the attack.	Duration: Of joint symptoms before entering hospital.	Duration: Of joint symptoms after entering hospital.	Duration: Of pyrexia after entering hospital.	Duration: Of stay in hospital.	Condition when discharged.	Maximum temperature.	Treatment.	Disagreeable effects of remedies employed.	Relapses: Time after cessation of joint symptoms	Relapses: Duration.	Relapses: Treatment.	Complications.
									Days.	Days.	Days.	Days.					Days.	Days.		
200	J. D. .	June 17, '78	M.	30	U. S.....	Laborer	1	Subacute.	14 days ..	4	... ..	4	I.	Normal.	Pot. iod. and colchicum.					
201	J. K....	June 6, '78	M.	43	Ireland.....	Laborer	1	Acute	14 days ..	63	24	63	I.	101	Salicylic acid and Rochelle salt.					
202	R. M....	June 13, '78	M.	62	England ...	Upholsterer.....	Several.	Subacute.	6 weeks ..	16	.....	16	I.	Normal.	Pot. iod. and colch. and Roch. salt.	.....	.....	.....	.....	Mitral insufficiency.
203	C. C....	June 24, '78	F.	14	New York..	None	2	Acute	1 day	4	.....	36	C.	Normal.	Salicylic acid	.....	10	4	Salicylic acid.....	Mitral insufficiency.
204	D. K....	June 27, '78	F.	22	Germany...	Domestic.....	1	Acute	17 days ..	16	15	42	C.	101.3	Salicylic acid	.....	6	2	Salicylic acid.....	Aortic stenosis.
205	L. W....	July 6, '78	F.	14	Germany...	Domestic.....	2	Acute	14 days ..	2	.....	10	C.	Normal.	Salicylic acid.					
206	A. A....	July 18, '78	M.	21	France	Cook.....	1	Acute	11 days ..	7	.....	20	C.	Normal.	Salicylic acid; blister locally	.....	.....	.....	.....	Aortic stenosis.
207	B. N.D.	Oct. 20, '78	M.	41	U. S... . ..	Nurse..... ..	1	Acute	5 days ...	28	4	43	C.	99.6	Salicylic acid; blister and iodine locally.	Vomiting	.....	.....	.....	Acute synovitis; aortic stenosis and insuf.
208	J. S.. .	Nov. 7, '78	M.	16	U. S.....	None.....	3	Acute	3 days ...	3	6	6	C.	102.2	Salicylic acid	.....	.....	.....	....	Mitral regurgitant; aortic stenosis; apex friction murmur.
209	C. A....	Nov. 8, '78	F.	27	Sweden	Domestic.....	1	Acute	21 days ..	16	6	25	C.	103	Sal. acid and pot. iod. and colch...	.....	.....	.....	.....	Aortic stenosis.
210	H. J....	Nov. 18, '78	M.	24	Nova Scotia.	Seaman	2	Acute	14 days ..	6	.....	6	C.	Normal.	Salicylic acid and pot. iod. and colchicum, ää gr. xx. t.i.d.	.....	.....	.....	.....	
211	C. P....	Nov. 19, '78	M.	55	England ...	Painter.....	Several.	Subacute.	7 days	54	.....	54	I.	Normal.	Pot. iod. and colch., ää gr. xx. t.i.d., and cautery locally.	Diarrhœa.				
212	G. A. P.	Nov. 22, '78	M.	35	U. S.....	Carpenter	Several.	Acute	8 days ...	5	.....	22	C.	Normal.	Salicylic acid	.....	11	5	Salicylic acid.....	Pain in precordium; mitral insufficiency; aortic stenosis.
213	J. D....	Nov. 29, '78	M.	43	Ireland.....	Driver.....	Several.	Acute	21 days ..	15	3	18	C.	99.25	Salicylic acid.					
214	J. M....	Dec. 5, '78	M.	18	Germany...	Clerk.....	1	Acute	3 days ...	8	.....	8	C.	102.5	Salicylic acid.					
215	T. F....	Dec. 13, '78	M.	45	Scotland ...	Packer	2	Acute	5 days ...	18	17	70	C.	101.6	Salicylic acid. Pot. iod. and colch., ää gr. xx., t.i.d.	Vomiting (both s. a. and pot. iod.)	1st relapse 11	18	Sal. acid. Sodæ bicarb. Quinine. Cautery.	
																	2d relapse 15	8		
216	D. K....	Dec. 24, '78	M.	35	Ireland.....	Carpenter	1	Acute	14 days ..	11	26	49	I.	100.2	Salicylic acid	First relapse.....	5	13	Sal. acid. Rochelle salt. Sod. bicarb.	
																Second relapse.....	6	14		
217	J. T. M.	Feb. 2, '79	M.	24	Ireland.....	Undertaker.....	2	Acute	7 days ...	2	.....	31	C.	Normal.	Salicylic acid.					
218	M. W..	Feb. 12, '79	M.	19	Ireland.....	Newsdealer.....	2	Acute	5 weeks ..	4	.....	7	C.	Normal.	Salicylic acid.....	.....	.....	.....	.....	Mitral insufficiency.
219	P. K....	Feb. 24, '79	F.	31	Ireland.....	Domestic.....	2	Acute	2 days ...	6	.....	64	C.	Normal.	Salicylic acid	....	10	40	Sal. acid. Pot. iod. and c. Guaiac; cautery.	Murmur at apex.
220	H. B....	Feb. 24, '79	M.	65	Germany...	Laborer	3	Subacute.	5 weeks ..	6	.....	32	C.	Normal.	Salicylic acid	.....	19	7	Salicylic acid.	
221	J. C. S.	Feb. 24, '79	M.	28	New York..	Driver.....	1	Acute ...	12 days ..	28	28	34	C.	104	Salicylic acid	....	.....	.....	.....	Mitral insufficiency; pericardium friction mur.
222	J. H. K.	Mar. 14, '79	M.	23	U. S.....	Colorer.....	1	Acute	5 days ...	8	3	19	C.	102.6	Salicylic acid.					
223	P. J....	Mar. 15, '79	M.	25	Norway	Sailor	1	Subacute.	8 weeks ..	7	.....	16	C.	Normal.	Potassic iodide.....	.....	7	2	Iodine locally.	
224	B. McG.	Mar. 18, '79	F.	46	Ireland.....	Cook.....	Several.	Acute	.....	3	4	4	C.	100.2	Salicylic acid.....	.....	.....	.....	.....	Mitral insufficiency.
225	J. M....	Mar. 21, '79	M.	34	Ireland.....	'Longshoreman..	2	Subacute.	4 weeks ..	34	.....	34	I.	Normal.	Pot. iod. and cautery; blister locally.					
226	B. F....	Mar. 24, '79	F.	34	Ireland.....	Laundress.....	4	Acute	7 weeks ..	4	4	59	C.	99.8	Salicylic acid	....	4	51	Salicylic acid and iodine locally.	Pleurodynia; aortic regurgitation; mitral stenosis.
227	J. McC.	Mar. 26, '79	M.	43	Ireland.....	Laborer	3	Acute	4 months .	34	.....	34	C.	101.4	Salicylic acid and pot. citras.					
228	J. D....	Mar. 31, '79	M.	42	New York..	Driver	Several.	Acute	3 days ...	4	.....	38	C.	Normal.	Salicylic acid	First relapse.....	5	5	Salicylic acid.	
																Second relapse.....	5	4	Potassium citras.	
229	R. G....	April 1, '79	F.	30	Ireland.....	None.....	2	Subacute.	3 months .	38	.....	38	C.	Normal.	Pot. iod., gr. xxij. t.i.d.; iodine locally (asafetida).					
230	A. F....	April 5, '79	M.	29	Germany...	Factory hand...	2	Subacute.	3 weeks ..	7	.....	7	C.	Normal.	Pot. iod. and colch., ää gr. xx., t.i.d.	Diarrhœa.				
231	P. O'K.	April 16, '79	M.	35	Ireland.....	Coachman.....	2	Subacute.	.....	20	.. ...	20	C.	Normal.	Salicylic acid	.....	.....	.....	.....	Aortic stenosis.
232	J. C. S.	April 16, '79	M.	28	New York..	Driver.....	2	Subacute.	.....	86	.....	99	C.	Normal.	Salicylic acid.					
233	E. M....	April 22, '79	F.	35	Ireland	None.....	Several.	Subacute.	4 weeks ..	20	.....	20	I.	Normal.	Salicylic acid	.....	.....	.....	....	Aortic stenosis.
234	J. J....	April 24, '79	F.	52	England ...	None.....	1	Subacute.	3 weeks ..	20	.....	20	I.	Normal.	Salicylic acid; iodine locally.....	....	.....	.....	.....	Aortic stenosis.
235	B. H....	April 25, '79	F.	35	Ireland.....	None.....	1	Acute	3 days ...	17	.....	27	C.	Normal.	Salicylic acid	.....	.....	.....	.....	Conjunctivitis.
236	B. McG.	April 26, '79	F.	48	Ireland.....	Cook.....	Several.	Subacute.	5 days ...	21	.....	21	C.	Normal.	Salicylic acid.					
237	J. F....	April 29, '79	M.	35	Ireland.....	Grocer	1	Subacute.	5 months .	14	.....	14	C.	Normal.	Mixed treatment; blister locally.					
238	B. H....	May 1, '79	M.	45	New York..	Druggist	Several.	Acute	7 days ...	6	3	6	I.	101.4	Salicylic acid	....	.....	.....	.....	Aortic stenosis.
239	S. S....	May 2, '79	F.	52	Ireland.....	Domestic.....	2	Subacute.	6 weeks ..	15	.....	15	C.	Normal.	Pot. iod. and colchicum	.....	.....	.....	.....	Aortic stenosis; mitral insufficiency.
240	J. M....	May 5, '79	M.	26	Ireland.....	Laborer	1	Acute	5 days ...	7	.....	7	C.	Normal.	Not given	....	.....	.....	....	Aortic stenosis; irregular heart action.

Record of Histories of Cases—*Continued.*

Number of case.	Name.	Date of admission.	Sex.	Age.	Nativity.	Occupation.	Number of the attack.	Variety of the attack.	Duration: Of joint symptoms before entering hospital.	Duration: Of joint symptoms after entering hospital.	Duration: Of pyrexia after entering hospital.	Duration: Of stay in hospital.	Condition when discharged.	Maximum temperature.	Treatment.	Disagreeable effects of remedies employed.	Relapses: Time after cessation of joint symptoms.	Relapses: Duration.	Relapses: Treatment.	Complications.
									Days.	Days.	Days.						Days.	Days.		
241	E. C....	May 6, '79	F.	43	Ireland.....	Cook.....	5	Acute	4 days ...	25	3	27	C.	101.6	Salicylic acid	.....	.....	.....	.....	Mitral insufficiency.
242	A. B...	May 11, '79	F.	20	Ireland.....	Domestic.....	1	Acute	4 days ...	10	.....	30	C.	100.8	Salicylic acid.					
243	J. D...	May 27, '79	M.	49	Ireland.....	Painter.....	Several.	Subacute.	14 days ..	34	.....	62	I.	Normal.	Salicylic acid	Diarrhœa.				
244	J. S....	May 30, '79	M.	30	U. S.....	Laborer	1	Acute	10 days ..	20	25	27	I.	102.5	Salicylic acid and quinine m. and n. Mixed tr. Pot. citrate and lemon-juice.	.....	.....	.....	.....	Mitral insufficiency.
245	C. McQ.	June 2, '79	F.	30	Ireland.....	None	1	Acute	4 days ...	3	3	5	C.	99.2	Salicylic acid	.....	.....	.....	.....	Mitral insufficiency (?).
246	J. M...	June 4, '79	F.	28	Ireland.....	Domestic.....	1	Acute	35 days ..	23	.....	23	C.	Normal.	Salicylic acid. Mixed treatment.....	.....	.....	.....	.....	Murmur at apex.
247	J. M...	July 3, '79	M.	55	Ireland.....	Florist	5	Sub. chron	42 days ..	25	.....	25	I.	Normal.	Pot. iod., gr. xv. t.i.d.; iodine locally.	Headache.				
248	H. C...	July 28, '79	M.	15	New York..	Laborer	1	Acute	4 months .	3	1	3	C.	99.2	Salicylic acid.					
249	J. W....	Aug. 8, '79	M.	57	Switzerland.	Laborer	4	Subacute.	.....	6	.....	6	I.	Normal.	Salicylic acid; iodine locally.					
250	H. McG.	Sept. 13, '79	M.	40	Ireland.....	Laborer	2	Acute	7 days	20	1	27	C.	101.4	Salicylic acid; iodine locally.					
251	G. C...	Sept. 20, '79	M.	29	U. S.....	Coachman.....	Several.	Acute	38 days ..	12	.....	12	I.	100.2	Salicylic acid and Mixed treatment.					
252	P. H...	Sept. 24, '79	M.	36	Ireland.....	Driver	2	Acute	28 days ..	17	15	17	C.	100.6	Salicylic acid. Mixed treatment; iodine locally.					
253	M. B...	Oct. 6, '79	F.	17	New York..	Housework	1	Subacute.	21 days ..	33	.....	33	I.	Normal.	Pot. iod. and colch. Salicylic acid.	Headache (pot. iod.).				
254	M. F...	Oct. 8, '79	F.	21	New York..	Housework	1	Acute	7 days ...	27	27	27	U.	102.8	Salicylic acid.					
255	E. F...	Oct. 8, '79	F.	30	England ...	Housework	3	Acute	63 days ..	6	1	34	C.	100	Salicylic acid	.....	.....	.....	.....	Heart, 2d sound changed.
256	B. H...	Oct. 14, '79	M.	45	New York..	Druggist	Several.	Acute	14 days ..	8	2	8	C.	101.8	Salicylic acid; iodine locally.					
257	E. C...	Oct. 31, '79	F.	40	Ireland.....	None	3	Acute	.....	9	1	9	I.	99.8	Salicylic acid.					
258	A. S...	Nov. 12, '79	F.	21	Pennsylv'nia	....	1	Subacute.	35 days ..	49	4	54	C.	99.4	Pot. iod., colch. and iron, āā gr. xv. t.i.d.					
259	J. K....	Nov. 22, '79	M.	58	Germany...	Florist	6	Acute	14 days ..	16	3	34	C.	101.2	Salicylic acid	.....	11	7	Salicylic acid.	
260	J. M...	Dec. 3, '79	M.	20	Germany...	Grocer	3	Acute	2 days ...	6	3	13	C.	103.2	Salicylic acid.					
261	R. L...	Dec. 3, '79	M.	18	New York..	Printer	1	Subacute.	8 days ...	44	.....	44	I.	Normal.	Salicylic acid.					
262	A. G...	Dec. 5, '79	F.	20	New York..	Domestic.....	1	Acute	7 days ...	5	.. ...	10	C.	Normal.	Salicylic acid.					
263	C. S....	Dec. 18, '79	F.	40	New York..	None.....	Several.	Acute	5 days ...	15	4	16	C.	100.4	Salicylic acid.					
264	M. S...	Dec. 24, '79	F.	17	New York..	Twine maker ...	2	Acute	6 days ...	7	4	21	C.	100.2	Salicylic acid	.....	.....	.....	.....	Mitral insufficiency.
265	H. W...	Dec. 27, '79	M.	60	Germany...	Farmer.....	2	Acute	7 days ...	5	.....	5	C.	Normal.	Salicylic acid.					
266	J. M. B.	Jan. 22, '80	M.	28	Alsace	Druggist	Several.	Acute	15 days ..	7	3	10	C.	101.5	Salicylic acid	.....	.....	.....	.....	Mitral insufficiency.
267	M. N ..	Jan. 28, '80	F.	25	Ireland.....	Domestic.....	1	Acute	5 days ...	9	3	39	C.	101.2	Salicylic acid	.....	6	14	Salicylic acid	Mitral insufficiency.
268	E. F....	Jan. 30, '80	F.	20	Ireland....	Domestic.....	2	Acute	7 days ...	4	1	15	C.	101.2	Salicylic acid	.....	.....	.....	.....	Mitral insufficiency.
269	J. R....	Feb. 2, '80	F.	30	Ireland.....	Laundress.....	1	Chronic ..	2 years...	33	.....	33	I.	Normal.	Iron and nux vomica.					
270	W. B...	Feb. 2, '80	M.	41	Ireland.....	Laborer	2	Acute	9 days ...	3	2	5	C.	99.8	Salicylic acid.					
271	H. H...	Feb. 6, '80	F.	22	New York..	Domestic.....	1	Acute	10 days ..	6	6	15	C.	100.4	Iron and nux vomica. Salicylic acid.	....	.....	.....	.....	Aortic stenosis.
272	F. R ..	Feb. 8, '80	M.	25	Germany...	Grocer	Several.	Acute	28 days ..	60	5	60	I.	101.2	Salicylic acid, and pot. iod. and colch.	Diarrhœa.				
273	E. M...	Feb. 13, '80	F.	18	Germany...	Domestic.....	1	Acute	9 days ...	23	20	33	I.	102.4	Pot. iod., gr. v. to x. t.i.d.....	.....	.....	.....	.....	Mitral insufficiency.
274	C. N...	Feb. 17, '80	M.	49	U. S.....	Physician	4	Subacute.	63 days ..	20	.....	30	C.	Normal.	Pot. iod. and colch., āā gr. x. t.i.d., and salicylic acid.	Diarrhœa and acne.				
275	A. F....	Feb. 27, '80	M.	50	Ireland.....	Blacksmith	Several.	Subacute.	35 days ..	15	.....	15	I.	Normal.	Salicylic acid; iodine locally.					
276	M. P...	April 6, '80	M.	26	New York..	Laborer	2	Acute	10 days ..	2	1	3	C.	100.6	Salicylic acid.					
277	G. H...	April 23, '80	M.	37	England ...	Salesman.....	3	Acute	35 days ..	16	1	16	C.	99.4	Salicylic acid; iodine locally. Pot. iod. and colch.	Nausea and vomiting (salicylic acid).	.....	.....	.....	Pericarditis.
278	J. B....	July 9, '80	M.	19	New York..	Agent.....	1	Acute	3 days ...	18	1	18	I.	100.8	Salicylic acid.	.....	.....	.....	.....	Mitral insufficiency.
279	M. C...	July 15, '80	M.	23	Ireland.....	Driver	1	Subacute.	10 days ..	15	.....	15	I.	Normal.	Salicylic acid and iodine locally.					
280	P. H...	July 10, '80	M.	27	Ireland.....	Laborer	1	Chronic ..	1 year....	20	.....	20	I.	Normal.	Cautery and iodine locally.	.....	.....	.....	.....	Aortic stenosis.
281	H. C...	July 16, '80	M.	31	Ireland.....	Carpenter	1	Subacute.	20 days ..	20	.....	20	C.	Normal.	Cautery locally.					
282	M. C...	July 26, '80	F.	17	Ireland.....	None	1	Acute	21 days ..	40	12	41	C.	103	Salicylic acid.					
283	E. C...	Aug 11, '80	M.	40	Germany...	Tanner.....	2	Acute ...	7 days	17	2	22	C.	101.6	Salicylic acid.					
284	P. P...	Aug. 14, '80	M.	53	Germany...	Butcher.....	2	Acute	7 days ...	13	1	13	C.	101.5	Salicylic acid.					
285	W. W..	Aug. 19, '80	M.	43	Massachu'ts	Salesman.....	2	Acute	10 days ..	16	11	20	C.	100	Pot. iod. and colch.; iodine locally. Salicylic acid.					
286	A. T...	Aug. 29, '80	F.	14	Canada	None	1	Acute	30 days ..	30	1	50	I.	100	Salicylic acid	.....	.....	.....	.....	Aortic stenosis.
287	C. L...	Oct. 4, '80	M.	28	Norway ...	Carpenter	1	Acute	21 days ..	52	22	52	C.	102.4	Salicylic acid. Pot. bicarb. Pot. iod. and colch.	Tinnitis aur. (sal. acid).	.....	.....	.....	Pericarditis; aortic stenosis; mitral insufficiency; developed while in hospital.
288	J. D....	Oct. 5, '80	M.	17	New York..	Baker.....	2	Acute	1 day	3	2	17	I.	102.8	Pot. citras, gr. xv. q. 3 hours.....	.....	.....	.....	.....	Pericarditis; mitral stenosis and insufficiency.
289	A. A...	Oct. 11, '80	M.	47	Norway	Seaman	1	Acute	16 weeks .	7	5	16	I.	102.2	Pot. iod. and colch., āā gr. xv. q. 4 hours.	Vomiting	4	3	Salicylic acid	Dry pleurisy.

290	E. C...	Oct. 12, '80	F.	45	Ireland.....	Cook.....	5	Subacute.	8 days ...	30	.....	35	C.	Normal.	Pot. iod., gr. xv., and colch., gtt. x. t.i.d.	Nausea and vomiting.	.....	.....	.....	Aortic stenosis.
291	P. C...	Nov. 5, '80	M.	19	Ireland.....	Carpenter	1	Acute	28 days ..	25	.....	30	C.	99.6	Pot. iod. and salicylic acid.....		.....	.....	.....	Aortic stenosis.
292	J. S....	Nov. 9, 80	M.	62	Ireland.....	Mason	1	Subacute.	8 days ...	15	.....	15	U.	Normal.	Pot. iod. and colch., and sal. acid.		.....	.....	.....	
293	N. C...	Dec. 7, '80	M.	60	Ireland.....	Marbleworker...	5	Acute	4 days ...	35	.....	35	I.	101.4	Salicylic acid ; iodine locally	Delirium	.....	.....	.....	Mitral insufficiency.
294	M. C...	Dec. 13, '80	F.	23	Ireland.....	Domestic.....	1	Acute	7 days ...	48	13	55	C.	104	Salicylic acid	Tinnitus aurium.....	.....	.....	.....	Mitral insufficiency.
295	A. F...	Dec. 30, '80	F.	16	Ireland.....	Domestic.....	1	Acute	35 days ..	5	21	35	C.	102.2	Salicylic acid	Vomiting,				
296	H. K...	Jan. 19, '81	M.	26	Germany...	Bartender	2	Acute	4 days ...	2	2	5	C.	101.4	Salicylic acid.					
297	J. E. W.	Jan. 30, '81	M.	39	England ...	Painter.....	1	Acute	8 days ...	29	.....	29	C.	100.1	Salicylic acid.					
298	W. D..	Feb. 2, '81	M.	17	Virginia	Laborer	1	Acute	3 days ...	8	16	20	C.	100.1	Salicylic acid		.....	.....	.....	Irregular heart action.
299	F. H...	Feb. 24, '81	M.	52	Germany...	Grocer	1	Acute	5 days ...	2	2	2	L.	102	Salicylic acid.					
300	T. McC.	Feb. 26, '81	M.	19	Ireland.....	None.....	3	Subacute.	7 days ...	22	.....	22	L.	Normal.	Pot. iod., gr.xv. t.i.d.; iodine locally.					
301	M. K...	Mar. 1, '81	F.	17	Ireland.....	Domestic.....	1	Acute	21 days ..	4	1	20	C.	101.5	Salicylic acid.					
302	J. H...	Mar. 10, '81	M.	24	Germany...	Shoemaker	1	Acute	6 days ...	10	3	16	C.	102.3	Salicylic acid.					
303	B. C...	Mar. 10, '81	F.	20	Ireland.....	Domestic.	1	Acute	17 days ..	7	.....	7	C.	100.3	Salicylic acid.					
304	G. H...	Mar. 16, '81	M.	25	England ...	Groom	1	Acute	2 days ...	3	.....	7	C.	100.3	Not given.					
305	M. E...	Mar. 17, '81	F.	21	Ireland.....	Domestic.....	1	Subacute.	42 days ..	33	.....	33	L.	Normal.	Salicylic acid		.....	.....	.....	Aortic stenosis.
306	S. P....	Mar. 23, '81	F.	20	Switzerland.	Domestic.....	1	Acute	3 days ...	5	.....	15	C.	100.4	Salicylic acid		.....	.....	.....	Friction sound at base.
307	L. G...	Mar. 18, '81	M.	24	Italy	Porter.....	1	Acute ..	3 days ...	3	3	7	C.	102.9	Salicylic acid.					
308	J. W...	Mar. 29, '81	M.	24	New Jersey.	Cigarmaker.....	5	Acute	7 days ...	7	.....	7	C.	102.8	Salicylic acid	Delirium.....	.....	.....	.....	Aortic stenosis.
309	K. M...	April 5, '81	F.	22	Ireland.....	Chambermaid ..	1	Acute	.....	5	7	27	C.	100.6	Salicylic acid		.....	.....	.....	Aortic stenosis.
310	J. M...	April 18, '81	M.	19	New York..	Elevator boy....	3	Acute	12 days ..	70	2	74	C.	100.2	Salicylic acid		.....	.....	.....	Aortic stenosis.
311	J. F....	May 3, '81	M.	50	Ireland.....	Driver	2	Acute	7 days ...	53	.....	84	C.	100	Salicylic acid		.....	.....	.....	Mitral insufficiency.
312	M. V..	May 8, '81	F.	37	Ireland.....	Laundress.....	2	Acute	1 day	33	7	45	C.	101.2	Salicylic acid and muriate ammonia.		.....	.....	.....	Iritis ; aortic stenosis.
313	C. M...	May 15, '81	F.	35	Ireland.....	Housekeeper....	2	Acute	21 days ..	15	1	15	C.	101	Salicylic acid.					
314	A. B...	May 12, '81	M.	16	New York..	Foundryman....	1	Acute	13 days ..	50	5	57	C.	103.8	Ammon. carb., gr. v. Ammon. muriate, gr. viij. Pot. citr., 3 ss., q. 4 hours. Salicylic acid. Pot. citr. Salicylic acid.	Delirium..... ...	.....	.....	.....	Aortic stenosis ; mitral insufficiency.
315	J. C....	May 22, '81	M.	26	Ireland.....	Laborer	1	Acute	14 days ..	15	7	17	C.	101	Not given	.....	.....	.....	.....	Mitral insufficiency.
316	F. J. B.	May 23, '81	M.	55	N. Hamp're	Census-taker....	3	Subacute..	14 days ..	15	.....	201	I.	100.2	Salicylic acid (for 15 days).....	....	13	173	Alkaline foot-baths for 15 days.	Œdema.
317	R. K...	May 28, '81	F.	24	England ...	None.....	1	Acute	21 days ..	50	27	53	I.	102.4	Salicylic acid. Pot. iod. and acetate.	Tinnitus aurium(sal.ac.)				
318	J. W...	May 29, '81	M.	80	Wales.....	None	Several.	Subacute..	11 days ..	20	.....	94	C.	Normal.	Salicylic acid	Nausea and vomiting..	4	67	Salicylic acid.	
319	R. P...	June 1, '81	F.	21	Ireland.....	Seamstress	2	Acute	7 days ...	11	4	12	C.	103.4	Salicylic acid	....				Mitral insufficiency ; reduplication 2d sound.
320	J. H....	June 7, '81	M.	25	Pennsylva'ia	Canal boatman..	1	Acute .. .	3 days ...	22	6	37	C.	101.6	Salicylic acid	....	.....	.....	.....	Mitral insufficiency.
321	I. McN.	June 17, '81	F.	30	Ireland....	Not given	1	Subacute..	7 days ...	75	1	116	C.	99.5	Salicylic acid ; iodine and cautery locally.					
322	M. H...	June 18, '81	F.	53	Ireland.....	Domestic.....	2	Acute	35 days ..	14	6	14	I.	102	Salicylic acid.					
323	G. T...	June 18, '81	M.	35	Germany...	Blacksmith	1	Acute	7 days ...	1	7	27	C.	100.5	Salicylic acid.					
324	B. R...	July 12, '81	F.	42	Ireland.....	Housework	1	Acute	7 days ...	30	12	36	C.	101.3	Salicylic acid	.....	.....	.....	.....	Systolic murmur.
325	J. C....	July 15, '81	M.	22	Ireland.....	Conductor	4	Acute	21 days ..	2	3	5	C.	101.1	Salicylic acid	....	.....	.....	.....	Mitral insufficiency.
326	P. G...	July 31, '81	M.	60	Ireland.....	Laborer	2	Acute	10 days ..	6	4	13	C.	102.1	Salicylic acid.					
327	H. L...	Aug. 12, '81	M.	21	Germany...	Grocer	2	Acute	21 days ..	3	1	56	C.	99.2	Salicylic acid.					
328	J. S....	Aug. 31, '81	M.	18	New York..	Printer.....	2	Acute	3 weeks ..	26	18	26	C.	101.5	Quinine, pot. acet., 3 ss., liq. ammon. acet., ℥ ss., q. 6 hours ; iodine and blisters.					
329	P. G....	Sept. 10, '81	M.	62	Ireland.....	Laborer	3	Acute	3 days ...	8	8	28	C.	100.6	Pot. iod., gr. xv. and pot. acet., gr. xl. t.i.d.					
330	E. M...	Sept. 19, '81	F.	48	Germany...	Domestic.....	5	Subacute..	7 days ...	14	.....	15	C.	Normal.	Salicylic acid.					
331	M. C...	Oct. 10, '81	F.	26	Ireland.....	Cook	1	Subacute..	81 days ..	54	.....	54	I.	Normal.	Hot douche locally.					
332	A. D...	Oct. 11, '81	F.	20	Sweden	Domestic.....	1	Subacute..	70 days ..	20	.....	20	I.	Normal.	Salicylic acid.....	.....	.....	.....	.....	Reduplication 2d sound.
333	C. D...	Oct. 27, '81	M.	18	New York..	Baker	1	Acute	5 days ...	4	1	4	I.	99.8	Salicylic acid	.....	.....	.....	.....	Mitral insufficiency.
334	M. K...	Oct. 26, '81	F.	60	Ireland.....	Domestic.....	1	Subacute..	60 days ..	97	.....	97	I.	100.4	Salicylic acid. Pot. acet.; iodine locally. Vin.sem. colch., gtt. xx. and tr. op. camph., 3 i. t.i.d. Mixed treatment. Guaiac, gr. iij. t.i.d.					
335	J. C....	Nov. 21, '81	M.	50	Germany...	'Longshoreman .	(?)	Acute	3 weeks ..	56	4	56	I.	102.8	Cautery.					
336	M Q...	Nov. 12, '81	F.	44	Ireland.....	Housework	Several.	Acute	30 days ..	21	.....	21	I.	100.7	Sal. acid. Resin guaiac, gr. iij. t.i.d.	....	.....	.....	.....	Ulcer of cornea.
337	A. G...	Nov. 29, '81	M.	60	New York..	Driver.....	1	Acute	4 days ...	26	14	26	I.	101	Salicylic acid. Pot. iod., gr. v. t.i.d. Guaiac.; cautery.					
338	E. H...	Dec. 2, '81	M.	44	Ireland.....	Coachman.....	Several.	Subacute..	21 days ..	25	.....	25	I.	Normal.	Salicylic acid ; cautery.					
339	M. P...	Dec. 2, '81	F.	41	Canada	Domestic.....	1	Subacute.	10 days ..	21	.....	32	C.	Normal.	Salicylic acid and morphia p. r. n. Pot. iod. and cinchona.	Coryza (pot. iodide).				
340	M. G...	Dec. 14, '81	F.	60	Ireland.....	Domestic.....	2	Subacute..	14 days ..	12	.....	41	C.	Normal.	Salicylic acid and tr. ferri chlor., ℥ xv. t.i.d.	....	.....	.....	.....	Mitral insufficiency.
341	I. O'C..	Dec. 21, '81	M.	40	Ireland.....	Porter.....	Several.	Acute	.....	12	2	12	I.	100.8	Salicylic acid ; iodine, and blister locally. Pot. bicarb.	....	.....	.....	.....	Reduplication 2d sound.
342	J. S....	Jan. 11, '82	M.	20	Germany...	Grocer	1	Acute	6 days ...	10	5	10	C.	103.2	Salicylic acid and iron.....	.....	.....	.....	.....	Purpura.
343	F. F....	Jan. 12, '82	M.	45	England ...	Seaman	2	Subacute..	4 days ...	19	.....	19	I.	Normal.	Iron and nux vomica ; iodine locally.					
344	E. E...	Jan. 16, '82	M.	45	Pennsylva'ia	Bricklayer.....	2	Subacute..	14 days ..	7	.....	100	I.	Normal.	Salicylic acid.....	....	15	78	Iodine locally.	
345	C. D...	Jan. 16, '82	F.	22	Ireland	Domestic.... .	2	Subacute..	42 days .	13	.....	17	C.	Normal.	Sal. acid and iron, and nux vomica. Pot. iod. and colch.	.....	.....	.....	.....	Mitral insufficiency.
346	B.McG.	Jan. 3, '82	F.	48	Ireland.....	Domestic.....	3	Acute	4 days ...	225	55	225	I.	102	Salicylic acid. Pot. iod. Sod. salicylate. Pot. iod.; iodine and blisters locally. Pot. iod. and colch. ; lead and opium locally.	Nausea and hiccough (sal.), diarrhœa (pot. iod.).				

Record of Histories of Cases—*Continued.*

Number of case.	Name.	Date of admission.	Sex.	Age.	Nativity.	Occupation.	Number of the attack.	Variety of the attack.	Duration: Of joint symptoms before entering hospital.	Duration: Of joint symptoms after entering hospital.	Duration: Of pyrexia after entering hospital.	Duration: Of stay in hospital.	Condition when discharged.	Maximum temperature.	Treatment.	Disagreeable effects of remedies employed.	Relapses: Time after cessation of joint symptoms.	Relapses: Duration.	Relapses: Treatment.	Complications.
									Days.	Days	Days	Days.					Days.	Days.		
347	E. P...	Jan. 19, '82	F.	27	Ireland.....	Domestic.....	1	Acute	2 days ...	44	12	47	C.	100.7	Salicylic acid and iron. Pot. iod. and colch.; iodine locally.					Purpura.
348	M. B...	Jan. 28, '82	F.	19	New York..	Domestic.....	3	Acute	4 weeks ..	17	1	17	C.	99.5	Salicylic acid; iodine locally					Roughened 1st sound; irregular heart action.
349	E. L...	Jan. 31, '82	F.	30	Ireland.....	Cook.....	2	Acute	3 weeks ..	12	2	16	C.	100.2	Salicylic acid. Pot. iod. and colch., āā gtt. xx. t.i.d.	Vomiting and diarrhœa (pot. iod. and colch.).				Aortic and mitral stenosis.
350	E. N...	Feb. 5, '82	F.	25	Ireland.....	Domestic	1	Acute	11 days ..	6	5	11	C.	102.7	Salicylic acid; iodine locally. Pot. iod. and colch., āā gr. xx. t.i.d.	Vomiting and diarrhœa (pot. iod. and colch.).				
351	C. N...	Feb. 6, '82	F.	22	Ireland.....	Domestic.....	1	Acute	2 days ...	11	1	11	C.	100.4	Salicylic acid; iodine locally.					Mitral insufficiency.
352	W. I...	Feb. 11, '82	M.	23	Ohio	Waiter	1	Acute	8 days ...	20	3	21	C.	101.2	Salicylic acid. Iron and nux vomica.					Mitral insufficiency.
353	E. M...	Feb. 11, '82	F.	48	Germany...	Cook.....	6	Subacute..	42 days ..	42	.....	42	C.	Normal.	Salicylic acid; iodine and blister locally. Pot. iod. and colch.	Diarrhœa (pot. iod. and colch.).				
354	W. L...	Feb. 14, '82	M.	47	Ireland.....	Rockman.....	1	Acute	3 days ...	5	3	14	C.	102	Salicylic acid. Pot. iod. and colch. Iron and nux vomica.					
355	P. E...	Feb. 16, '82	M.	35	Ireland.....	Shoemaker	1	Acute	1 day	27	5	27	C.	102.8	Quinine, gr. xx.; iodine locally. Hot lead and opium locally. Pacquelin cautery. Hot douche.					
356	W. H..	Feb. 17, '82	M.	40	Canada	Planer	1	Subacute..	6 days ...	18	.....	21	C.	Normal.	Salicylic acid; iodine locally. Pot. iod. and colchicum.	.....				Aortic stenosis; mitral stenosis.
357	J. H...	Feb. 28, '82	M.	42	New York..	Painter.....	1	Acute	3 days ...	3	.....	8	C.	Normal.	Salicylic acid.					
358	G. A...	Mar. 2, '82	M.	32	New York..	Laborer	Several.	Acute	6 days ...	4	3	29	C.	102.3	Salicylic acid. Iron and nux vom.; iodine locally.	.....	10	5	Sal. acid. Pot. iod. and colch.; iodine locally.	
359	E. F...	Mar. 3, '82	F.	21	Ireland....	Domestic.....	1	Acute	3 days ...	99	29	99	C.	103.5	Salicylic acid. Pot. iod. and colch. Iron. Salicylic acid. Sod. salicyl., gr. xx. q. 2 hours. Pot. acet. Pot. citr. Iron.	Vomiting (sal. acid. and sod. sal.).	.....	.....	.....	Mitral stenosis and insufficiency; developed in hospital.
360	J. J....	Mar. 10, '82	M.	27	England ...	Porter.....	1	Acute	7 days ...	5	2	126*	C.	101.7	Salicylic acid	.....	.....	.....	.....	Pericarditis.
361	H. W...	Mar. 13, '82	M.	37	England ...	Blindmaker.....	3	Acute	10 days ..	29	1	29	C.	101	Salicylic acid. Pot. iod. and colch.	.....	.....	.....	.....	
362	J. S....	April 8, '82	M.	33	New York..	Plasterer	Several.	Acute	25 days ..	5	.....	31	C.	Normal.	Salicylic acid	.....	.....	.....	.....	Aortic stenosis.
363	J. S....	April 11, '82	M.	20	Massachu'ts	Waiter	1	Acute	6 days ...	2	1	7	C.	99.4	Salicylic acid	.....	1	4	Iodine locally.	
364	A. R...	April 11, '82	F.	38	Ireland.....	Housework.....	2	Acute	7 days ...	88	6	88	U.	102.5	Salicylic acid; blisters locally. Iron. Pot. iod. and colch.; cautery. Pot. bicarb.; ice locally. Blisters. Mur. ammonia.	.....	.....	.....	.....	Transferred to surgery division for arthritis.
365	C. G...	April 12, '82	M.	38	England ...	Musician	3	Acute	28 days ..	9	.....	9	C.	100.1	Pot. iod. and colchicum.....	.....	.....	.....	.....	Mitral and aortic insuf.
366	T. B...	April 18, '82	M.	39	Ireland.....	Laborer	1	Acute	30 days ..	16	1	17	C.	99.6	Salicylic acid. Pot. iod. Pot. iod. and colchicum.	.....	.....	.....	.....	
367	E. H. S.	April 19, '82	M.	28	New York..	Printer	1	Acute	3 days ...	35	7	40	C.	105.3 Ax 106.1 R.	Salicylic acid. Sod. sal.; iodine locally. Quinine and cold baths for hyperpyrexia.	.....	.....	.....	.....	Hyperpyrexia.
368	A. McS.	April 21, '82	F.	60	Ireland.....	Housework.....	2	Acute	30 days ..	3	3	36	C.	102.2	Salicylic acid. Iron.....	First relapse.....	3	5	Salicylic acid.	
																Second relapse.....	8	6	Salicylic acid.	
369	S. McC.	April 26, '82	F.	45	Massachu'ts	Nurse.....	2	Acute	4 days ...	7	.....	7	C.	Normal.	Salicylic acid. Pot. iod. and colch..	.....	.....	.....	.....	Mitral insufficiency.
370	F. M...	April 26, '82	M.	25	Germany...	Laborer	2	Acute	7 days ...	17	15	31	C.	102.7	Salicylic acid	.....	4	2	Salicylic acid.....	Mitral insufficiency; pericarditis dev'd in hosp.
371	C. N...	May 3, '82	F.	20	Ireland.....	Domestic.....	1	Acute	2 months .	21	1	21	C.	101.2	Salicylic acid. Pot. iod. and colch.; iodine locally.					
372	G. Q...	May 6, '82	M.	20	Germany...	Butcher	2	Acute	21 days ..	4	.....	4	C.	Normal.	Salicylic acid.					
373	W. McG	May 7, '82	M.	50	Scotland ...	Engineer	9	Acute	7 days ...	24	2	24	C.	100.3	Salicylic acid. Pot. iod. and colch..	.....	.....	.....	.....	Mitral insufficiency.
374	A. B...	May 8, '82	F.	27	Scotland ...	Housework.....	2	Acute	10 days ..	18	4	18	C.	101.7	Salicylic acid. Pot. iod. and colch.					
375	M. L...	May 18, '82	F.	21	Sweden	Housework.....	1	Subacute..	3 months .	11	... ..	11	C.	Normal.	Iron and nux vomica.					
376	A. R...	May 18, '82	M.	24	Switzerland.	Designer	2	Acute	3 days ...	8	4	31	C.	100.3	Salicylic acid	.....	3	1	Salicylic acid.	
377	J. G....	May 25, '82	M.	25	Ireland.....	Groom	1	Acute	2 days ..	9	2	9	C.	101	Salicylic acid	.....	.....	.....	.....	Mitral insufficiency.
378	J. F....	May 28, '82	M.	26	Ireland.....	Janitor	1	Acute	21 days ..	9	6	9	C.	102.2	Salicylic acid.	.....	.....	.....	.....	
379	S. R...	May 30, '82	F.	19	Ireland.....	Chambermaid...	1	Acute	6 days ...	17	9	30	C.	100.5	Salicylic acid and sodæ bicarbonas.	.....	9	3	Salicylic acid.....	Mitral insufficiency; aortic stenosis; slight friction murmur.
380	G. Q...	May 30, '82	M.	20	Germany...	Butcher	3	Acute	6 days ...	24	16	24	C.	101.4	Salicylic acid. Alkaline mixture....	.....	.....	.....	.....	Mitral insufficiency; developed in hospital.

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cases of rheumatism in different months of the year is given in Tables C and E. In these the comparison is based on the commencement of the joint symptoms, as learnt from the history of the patient.

From these tables it appears that the greatest average number of cases occurred in May and April, the months in which the weather is very changeable, and often inclement, and notably unfavorable for persons subject to attacks of rheumatism.

In August and September the minimum number of cases occurred, while the average number increased from the latter month to November, when it continued about the same until April, when the maximum number occurred.

Comparing the average number of cases for each of the four summer months with that for each of the remaining months of the year, we get the ratio of 2.124 to 3.402, or approximately 3 to 5. This is arrived at as follows:

TABLE F.—*Comparison of average number of cases during summer months and rest of year.*

	Average as per Table E.		Average as per Table E.
June	2.727	October	2.4
July	2.635	November	3.5
August	1.635	December	3.6
September	1.5	January	3.545
		February	3.
		March	3.354
		April	3.818
		May	4.
	8.497		27.217
8.497 in four months; average, 2.124.		27.217 in eight months; average, 3.402.	

TABLE G.—*Showing temperatures, variety of the attacks, condition when discharged, and the mortality and causes of death.*

Maximum temperature (axillary).	Cured.			Improved.			Unimproved.			Died.			Total.
	Acute.	Subacute.	Chronic.	Acute.	Subacute.	Chronic.	Acute.	Subacute.	Chronic.	Acute.	Subacute.	Chronic.	
Normal.	39	72	2	..	52	23	..	1	2	..	1 *a*	..	192
99° – 99.5°	10	2	..	2	..	..	..	..	..	..	..	..	14
99.5°–100°	10	..	..	3	1	..	..	..	..	1 *b*	..	..	15
100° –100.5°	20	1	..	7	2	..	..	..	..	..	..	..	30
100.5°–101°	13	..	..	4	1	..	..	..	..	..	..	..	18
101° –101.5°	24	..	..	6	1	..	..	..	..	..	..	..	31
101.5°–102°	17	..	..	1	..	..	..	..	..	..	..	..	18
102° –102.5°	18	..	..	8	..	..	..	..	..	..	..	..	26
102.5°–103°	14	..	..	3	..	..	2	..	..	1 *c*	..	..	20
103° –103.5°	12	..	..	1	..	..	..	..	..	..	..	..	13
103.5°–104°	11	..	..	..	..	..	..	..	..	1 *d*	..	..	12
104° –104.5°	7	..	..	..	..	..	..	..	..	..	..	..	7
104.5°–107.2°	3	..	..	..	..	..	..	..	..	1 *e*	..	..	4
	198	75	2	35	57	23	2	1	2	4	1	..	400
	275			115			5			5			

a. Autopsy showed hypertrophy of right ventricle; hypertrophy and dilatation of left ventricle; aortic insufficiency; atheromatous mitral valve; chronic Bright's (atrophied kidney).

b. Autopsy showed atheromatous base, aortic and mitral valve; embolism of left middle cerebral; softening of brain; acute meningitis.

c. Bright's; suppression of urine.

d. Autopsy showed kidneys large; vegetations on mitral valve; base of aortic atheromatous.

e. Pericarditis; endocarditis; double pneumonia.

Acute cases	239
Subacute cases	134
Chronic cases	27
Total	400

Distinction of variety of attack.—The classification of attacks of rheumatism into acute, subacute, and chronic is often very difficult, since they run from one into the other form gradually.

In these pages the distinction has been based on the temperature, the readiness with which the attack responded to treatment, or, on the other hand, its obstinacy, and in the third place the duration of the attack. But in many cases the distinction between the three different forms, especially between the subacute and chronic, was somewhat forced, since they merged so imperceptibly from one into the other form.

(To be continued.)

ANTISEPTIC SURGERY AT BELLEVUE HOSPITAL.

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WHETHER a surgeon believe in the germ theory or not, is a matter of little practical importance; but certain facts which are pertinent to the subject of germ development must be accepted by all. The discharges from wounds contain nutritious material for bacteria of different forms, and these bacteria rapidly avail themselves of the opportunity to propagate their kind whenever they are not prevented from doing so. The products of the decomposition caused by their growth are irritating to a wound, and change the natural order of reparative processes, to say nothing of the probability that special bacteria provoke particular forms of inflammation.

Any one can see bacteria who will take the trouble to look at them, and any one can appreciate the harmful influence of their presence in a wound if he will compare a wound containing many of them with a wound in which few have been allowed to enter. We are possessed of the means for restraining the development of bacteria, and whoever fails to gain this end fails to avail himself of the proper opportunities for making an aggression against the entrance of bacteria into a wound.

If the surgeon be perfectly familiar with the nature of fermentation processes, it is still no easy matter for him to take the necessary precautions for preventing them, and the most rigid following-out of the technique in his methods is required to insure success. Success is sure to follow strict antiseptic precautions, but it must be remembered that bacteria will crawl into the spigot if the bung alone be stopped.

Probably no better place than Bellevue Hospital can be found for comparing the benefits of antiseptic measures with the results of ordinary wound treatment, and in the wards where the details for keeping wounds in an aseptic condition have been carefully studied most gratifying results have been obtained. It is a common thing for very bad compound fractures and the largest of operation wounds to heal under one or two dressings, and such dressings remain perfectly sweet for three or four weeks at a time, so that there is no necessity for the surgeon disturbing them in any way. The patient, instead of having his wounds dressed every day or two while profuse suppuration is draining away his strength, quietly reads his paper and peacefully chews his tobacco while the surgeon passes through the ward and glances at the temperature chart at the head of the bed. In the wards in question pyæmia and septicæmia are unheard-of diseases, and foul, purulent wounds are entirely out of date. Primary union is by far the commonest method of repair, and in granulating wounds the discharge is so small in quantity that it seldom appears through the permanent dressings.

Various methods and different kinds of antiseptic dressings are employed in the different divisions, but the commonest antiseptic solutions are of carbolic acid, bichloride of mercury, salicylic and boracic acids. Iodoform is in constant use. Carbolized gauze, borated cotton, or prepared peat, form the larger part of the bulky dressings. Ligatures are carefully prepared before being used, and so are drainage-tubes and protection silk. The solutions of carbolic acid are aqueous ones, and in the proportions of one part to twenty, one part to thirty, or one part to forty of water. Bichloride of mercury is diluted with from one thousand to five thousand parts of water. Salicylic and boracic acids are usually combined in the proportion of one part of the former to six parts of the latter, and these are dissolved in five hundred parts of water. In some of the wards the orderlies and nurses are given written directions, and the following is a copy of these:

"I. No one shall touch a wound, or the vicinity of a wound, unless his hands are thoroughly carbolized.

"II. No material shall be allowed to touch a wound, or the vicinity of a wound, unless it has been antiseptically prepared.

"III. No sponge shall be employed about a wound unless the sponge has been antiseptically prepared.

"IV. No prepared sponge shall be used after it has come in contact with any substance which has not been rendered aseptic.

"V. Sponges are not to be touched by any person whose hands are not carbolized.

"VI. Sponges employed are not to be used at more than one operation.

"VII. During an operation sponges that are bloody are to be washed in a solution of carbolic acid (1 to 40), and by a person whose hands are carbolized.

"VIII. Protective silk and rubber drainage-tubes are to be kept in bottles filled with carbolic acid solution (1 to 40), and these articles are to be removed by the senior or junior assistants only.

"IX. All material for dressings is to be kept in a perfectly clean place, and the material shall be handled only by carbolized hands.

"X. Dressings are to be made up by such persons only as have carbolized hands.

"XI. Dressings are to be prepared on clean towels and must not touch surrounding objects.

"XII. Instruments are to be kept in carbolic acid solution during an operation, and are to be handled by aseptic hands only."

In giving a description of the routine which would be followed in an operation, it is perhaps best to select some particular case. Let us suppose, for instance, that a man who has suffered a compound fracture of the patella has just been brought in. The patient having been undressed is placed upon a table, which is covered with a rubber blanket and which slopes downward from the end where his head lies. The blanket is gathered at the lower end of the table so that irrigating fluids may run into a pail placed for their reception. Above the table is suspended a large pail which contains any one of the antiseptic solutions which the surgeon may prefer, and descending from it is a long rubber tube supplied with a sprinkling nozzle and stopcock. The injured knee is now scrubbed with soapsuds and the hairs in the vicinity are shaved off with a sharp scalpel or razor. The knee and the leg above and below are washed with strong carbolic acid solution, and towels which have been wet with the same are placed in every direction about the limb, leaving exposed only that portion which immediately concerns the operator. One assistant is to share the work of the operating surgeon, another handles instruments, and another manages the irrigator. The nurses handle the sponges which are being used by the surgeons, and all parties, with the exception of the one who gives the anæsthetic, have rendered their hands aseptic. The operator now makes an incision which opens up the knee-joint widely and exposes the fragments of the patella. The fluid from the irrigator is thrown in jets over the wound and all clots are washed away. Bleeding vessels are attended to, and the fragments of bone trimmed so that they be readily approximated, and at frequent intervals the irrigator is made to play over the exposed parts. The patella having been firmly wired with strong silver wire, the soft parts are brought into place and sutured with catgut, each structure being separately sutured. A drainage-tube has been inserted through a counter-opening at the most dependent part of the synovial sac, and everything is ready for the dressings. Iodoform is first sprinkled over the wound, and then strips of protective silk are laid upon the sutured line of incision. Wads of loose carbolized gauze are placed about the knee to allow of free percolation of discharges, and over all a bulky dressing of borated cotton, between layers of carbolized gauze, is bandaged with a carbolized roller bandage. Any splint which the surgeon may prefer is then applied, and the patient placed in bed. If serum appears through the dressings afterward, iodoform is sprinkled over the part and an additional wad of borated cotton bandaged on. Should the surgeon wish to change the dressing an irrigator is employed for sprinkling the knee while this is being done. If absorbable drainage-tubes have been used the dressings will probably not be changed for several weeks; but if the drainage-tubes be of rubber they would be removed at the end of ten days.

A patient treated in the manner described would probably not have at any time a temperature much above normal, and it is a common thing for all of the vital signs to remain normal after the first day or two. In case the temperature should run up to 102° F., a change of dressings and a purge would be indicated.

After the patient has remained quiet long enough for reparative processes to be completed the dressings are removed, and the surgeon has only to begin passive motion for the completion of his restorative measures.

TWO CASES OF EMPYEMA IN CHILDREN,

Illustrating Recovery by Absorption and Cure after Incision.

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Case I.—Willie B——, aged two years and six months, was first seen on October 8, 1882, and the following history obtained from the parents: Eleven days before, on September 28th, the child was taken sick and had since been treated by another physician for pneumonia. Severe cough, high fever, with very rapid and labored breathing, constituted the chief symptoms, constant from the beginning to the present moment of illness. Pulmonary examination revealed marked dulness on percussion and bronchial breathing over the right upper lobe anteriorly and posteriorly, and abundant crepitant and subcrepitant râles, with slight dulness on percussion, over the posterior surface of the right lower lobe. Left lung normal. Temperature, 104° F.

On the following morning apyrexia was established, and the little patient, although exceedingly weak and exhausted, looked comfortable. My attention was now drawn to a swelling of the right knee which the parents had first noticed three days previously, on October 6th. The swelling occupied the right knee-joint, which it distended, especially on its inner aspect, and gave distinct fluctuation. It grew steadily in size until October 11th, when the needle of a hypodermic syringe was introduced and a diagnostic sufficiency of pus withdrawn. Removal of the inflammatory products in the lung had, in the meanwhile, been progressing favorably, and on October 13th, with the assent and assistance of Dr. N. G. McMaster, the pyarthrosis genu was operated upon. Notwithstanding the feeble condition of the child, it was deemed best to administer chloroform. Two incisions were made, one on the inner and the other on the outer aspect of the knee, and six to eight ounces of pus evacuated. The operation was done with strict antiseptic precautions, including the use of the spray; the cavity of the joint thoroughly irrigated by a two per cent. solution of carbolic acid; a drainage-tube drawn through from one incision to the other, left in situ, and the wound dressed antiseptically. No reaction followed the operation, and the dressings were subsequently renewed every fourth or fifth day. The drainage-tube was cut in the centre, and each half gradually withdrawn from the corresponding opening at succeeding dressings. A month later, on November 6th, all discharge had ceased; on November 13th both wounds were entirely healed, and although the tissues on its anterior surface remained slightly thickened, perfect mobility of the joint obtained.

We retrace our steps in the history of the case to October 16th, when a lobular pneumonia of the *left*

lung developed, accompanied by slight fever and constitutional symptoms lasting about four days. The disease occupied chiefly that portion of the left lung extending from the second to the fourth rib anteriorly, and there the foci of bronchial breathing were most numerous. Over the lowest portions of the lung, both anteriorly and posteriorly, breathing remained vesicular. On October 20th the constitutional symptoms had abated; normal resonance on percussion and vesicular respiration were established over all portions of the right lung, and the left lung contained but a few catarrhally inflamed lobuli in its upper lobe. The patient was doing well, cough had almost entirely ceased, and nothing untoward was observed until October 28th, when the child complained of pain in the left side, and slight dyspnœa was noticed which kept on gradually increasing. On November 2d the left pleura was discovered to be filling with fluid. There was dulness, almost flatness, on percussion over the lower portion of the left lung, both anteriorly and posteriorly, excepting a small belt, about an inch in width, encircling the lowest portions of lung, from the præcordial space in front to the spine behind, over which normal resonance and vesicular respiration could be obtained. Over the dull and flat portions breathing was either distant bronchial or entirely suppressed. The cardiac apex beat was displaced to the right of the sternum, and this was taken as an indication of the presence of a considerable amount of fluid in the left pleura. Repeated blisters, diuretics, diaphoretics, and cathartics exerted no appreciable influence in checking the steady rise in the level of the fluid. The dyspnœa, however, did not grow extreme until about November 18th, when it became so severe that the patient's life seemed in constant imminent peril.

On November 25th the child was taken to Dr. John H. Ripley, at the Polyclinic. The following memoranda of his condition were recorded, and a copy thereof kindly furnished me by Dr. Ripley:

Inspection.— Falling in of intercostal spaces and epigastrium during inspiration.

Palpation.—Heart apex under right nipple. On right side vocal fremitus feeble, and on left generally absent, except in front under clavicle, where it is a little more marked than normal.

Percussion.—On left side absolute flatness over upper third of lung; below, tympanitic, due in part to stomach and in part to hyperdilatation of air-cells. On right side percussion varies; over certain portions exaggerated—vesiculo-tympanitic—and over others dull.

Auscultation.—Left lung: in front, at apex, bronchial respiration with diminished vocal resonance; behind, at apex, broncho-vesicular respiration; at extreme apex and over remaining upper third, distant bronchial breathing; over lower two-thirds, absence of vesicular murmur, with sonorous and creaking sibilant râles. Right lung: exaggerated breathing, with large dry and moist râles.

An encapsulated pleuritic effusion was diagnosed and, with a view of determining the character of the fluid, a hypodermic syringe was introduced in the fifth or sixth left intercostal space posteriorly, and a small quantity of pus withdrawn. The indication for its evacuation seemed evident and urgent enough, and, with the father's assent, free incision was determined upon. On reaching the home of the patient on the following morning with Dr. Ripley, we found that the non-consenting and alarmed mother had fled with the child to parts unknown. After a second unsuccessful attempt, made a few days later, to find the child at home, the operation was of necessity abandoned and further attendance discontinued. A speedy dissolution seemed at this time the fate almost inevitably in store for the little sufferer. Food had been refused and no sleep obtained for many successive days, the extreme dyspnœa rendering any approximation to the recumbent position impossible.

In the latter days of April, 1883, I was summoned to attend the mother of the child, and to my surprise found the latter alive, running about and playing with other children, apparently as well as most of them. The mother informed me that since November 28, 1882, the date of my last visit, the dyspnœa had gradually grown less and less, and since the beginning of February the child had had neither cough nor dyspnœa, and was about as well as ever. At no time had the cough, generally dry in character, been at all violent, and there had never been anything like abundant expectoration. On examination of the chest I found normal resonance on percussion and vesicular respiration over entire right lung; vesicular, though feeble, respiratory murmur and slightly diminished resonance over entire left lung; no râles. The cardiac apex beat in the fifth intercostal space, midway between the edge of the sternum and the left nipple. The right knee had given no further trouble, the incisions had remained healed, and pus had not reaccumulated. There was not the slightest impairment of its function in any direction.

I communicated the facts as above stated to Dr. Ripley, and invited him to verify them for himself by a visit to the patient. The doctor stated at the time that although absorption of a purulent pleuritic exudation by the unaided efforts of nature was of infrequent occurrence, it was still a recognized possibility; that, however, phthisis usually developed subsequently in these cases, and that he should not be surprised if such should be the result in the present instance.

For one reason or another it was not until October 19, 1883, that we again saw the child together. I had, in the meantime, with a view to watching the progress of the case, visited the patient on several occasions alone. In August, 1883, cough, after an absence of nearly four months, returned; slight at first, but gradually increasing in amount. A few crepitant and subcrepitant râles were recognized in the left upper lobe, and the percussion note over the same region grew less and less resonant. In September a chronic catarrhal pneumonia confined to the left upper lobe had firmly established itself, and in the beginning of October the physical signs demonstrated the existence of a cavity near the left apex. On October 19th, as above stated, Dr. Ripley visited the case with me and the following *status præsens* was recorded:

Circumference of chest immediately below nipples, 20¾ inches; right side, 10⅜ inches; left side, 10⅜ inches; apex beat in fifth intercostal space, 1⅛ inch to left of median line and 1½ inch to right of left nipple.

Right lung: Percussion note and respiratory murmur exaggerated anteriorly; posteriorly, exaggerated respiratory murmur—rude, and with a few subcrepitant râles, at apex.

Left lung, anteriorly: Percussion note dull, tympanitic under left clavicle down to nipple; from nipple down quite dull. Cavernous breathing and loss of respiratory murmur under clavicle. Mucous and creaking sibilant râles down to nipple; below that respiratory murmur very feeble.

Left lung, posteriorly: Percussion note very dull from apex to near lower angle of scapula; from latter point down, rather exaggerated. Over entire upper third of lung respiratory murmur for the most part bronchial, with mucous and sibilant râles. Over lower one third respiratory murmur somewhat feeble, but otherwise normal. Cavernous breathing at superior internal angle of scapula.

The history of the main events in the above case may be summarized as follows:

The acute catarrhal pneumonia of the right lung began September 28, 1882, and involved the entire upper and the posterior portions of the lower lobe. The acute symptoms due to it terminated on October 9th, and on October 20th complete removal of the products of inflammation was indicated by the physical signs.

The pyarthrosis genu first attracted attention on Octo-

ber 6, 1882. On October 11th the presence of pus was demonstrated; the operation was performed on October 13th. A month later the wounds had healed and the function of the joint was perfectly re-established. The lobular pneumonia of the left lung developed about October 16, 1882. The auscultatory signs still showed its presence to a slight extent on October 28th, when the pleuritis supervened.

The pleurisy of the left side began, as just stated, on October 28th. It involved the pleura overlying those portions of lung previously the seat of catarrhal pneumonia. The resulting inflammatory products subsequently became encapsulated in this situation, leaving a small zone above and below where the lung reached to the chest-wall, to which it was probably bound by adhesions. On November 25th the fluid was demonstrated by the hypodermic needle to be purulent in character, and was sufficient in quantity to crowd the heart over to the right nipple. About this time, to judge from the further history as obtained from the mother, resorption of the pus began, and in April, 1883, and at frequent examinations subsequently, I could find no evidence of the presence of fluid in either pleura. Careful inquiry failed to elicit the existence, at any time, of symptoms pointing to a possible evacuation of pus through the bronchi. At this time, moreover, the lungs themselves seemed to be free from disease. In August, 1883, a catarrhal condition established itself in the upper lobe of the left lung and gradually led to destruction of pulmonary tissue and the formation of a cavity.

Case II.—Joseph P——, aged two years and ten months, in November, 1881, had an attack of acute catarrhal pneumonia of the right upper lobe, for which I attended him, and from which he made an excellent recovery. With this exception he had been well up to November 28, 1882. On that day, at 9 A.M., he was taken suddenly with high fever and rapid breathing. I saw him at 11 A.M., when his temperature was 104⅘° and pulmonary examination gave negative results. On the following morning there was cough in addition to the continued high fever. Dulness on percussion, loud bronchial breathing, increased vocal fremitus and resonance were found over the lower lobe of the left lung. On November 30th the same signs, somewhat altered, remained. The dulness had increased; the bronchial breathing had assumed a distant character; the vocal fremitus and resonance, though still above the normal, were less intense than on the previous day. On November 31st the dulness had changed to complete flatness; the breathing was faintly and distantly bronchial; vocal fremitus and resonance had entirely disappeared. The physical signs of the pneumonia were marked by those of the accompanying pleuritis. During these three days the temperature remained constantly at 104⅘° to 104⅝° F.

On December 1st there was sudden approximate defervescence, the thermometer in the rectum indicating 100½°. The physical signs remained the same. From December 1st to December 7th, the temperature varied between 101½° to 102½°. The slight rise appeared to be due to an extension of the catarrhal pneumonia to a portion of the left upper lobe.

On December 7th and the three days following, the temperature did not rise above 99½° in the rectum. On December 11th the needle of a hypodermic syringe was introduced into the sixth intercostal space of the left side posteriorly, and a syringeful of sero-purulent fluid withdrawn from the left pleura. The child continued experiencing slight febrile movement and not doing particularly well until December 22d, when another puncture demonstrated a change in the character of the fluid to thickly purulent. The amount of fluid was sufficient to displace the cardiac apex beat to within an inch of the right nipple. The dyspnœa was proportionate. Thoracentesis was advised and was being debated by the parents, when, on December 26th, the patient was taken with measles contracted from an elder brother. With the exception of a rather severe bronchitis, the disease ran a mild course. On January 6, 1883, with the assistance of Dr. N. G. McMaster, a free incision was made in the seventh intercostal space immediately below the angle of the scapula. About a pint of thick, laudable pus was evacuated. The operation was done under the spray, a drainage-tube introduced, and the pleura syringed out with a one per cent. solution of carbolic acid. The tube was held in place by a string attached to it and tied around the chest. Gutta-percha protective, salicylated jute and carbolized gauze bandages completed the dressing. On the following day the pleura was again irrigated by a one per cent. solution ac. carbol., until the fluid returned clear. Thereafter the dressings were changed about once in three or four days until final removal of the tube, on March 18, 1883. A few days later the wound was entirely closed and has remained so until the present time. Immediate and striking improvement in the child's condition followed the operation. He ate and slept well, and was permitted to run about the room with his companions. His temperature fell to normal and remained thus until the final closing of the wound, with but two exceptions. On both occasions the slight rise was due to clogging of the tube and consequent impediment to the free discharge of pus. The removal of this condition of affairs was followed by prompt defervescence.

Vesicular respiration and nearly normal resonance on percussion were re-established over the entire left lung, and the child is to-day enjoying the best of health. The chest has fully expanded, and were it not for the remaining scar, there would be nothing to indicate to the eye on which side the disease had existed. The heart has returned to its normal position; a faint, soft, systolic bruit, however, is heard at and near the apex. Careful mensuration of the chest shows both sides to be equal, each measuring ten inches in circumference. The above statements and measurements were all verified by Dr. John H. Ripley, who kindly visited the ex-patient with me on October 19, 1883.

In connection with the etiology of the case, the following facts may be of possible interest. A brother of our patient, aged five years and three months, was taken with acute pneumonia and pleuritis, affecting the left lower lobe and its overlying pleura, on November 24, 1882. The symptoms were very severe, the temperature remaining between 104½° and 105° for five days. Defervescence occurred on November 30, 1882; a week later complete absorption of the pleuritic fluid had taken place, and the boy was turned out of the house. On December 14, 1882, he was again suddenly taken with acute pneumonia of the right lower lobe and inflammation of its overlying pleura. Defervescence, as in the first attack, set in six days later, on December 20th. Our own patient was taken ill on November 28th, and apyrexia in his case was established on the fourth day. Here were three attacks of acute pleuro-pneumonia occurring within three weeks in two members of a family of four boys; all were characterized by extreme constitutional symptoms, and in each there was a considerable amount of pleuritic exudation. In the elder child's case this was, in both instances, speedily resorbed; in our patient it became converted into pus.

The case of Willie B—— proves positively the possibility of the resorption of a large quantity of a thickly purulent pleuritic exudation. Conversation with a number of brother practitioners has left me with the impression that such possibility is a fact not so universally recognized as it should be. That some difference of opinion on this subject exists also among writers on diseases of children, the following quotations will, I think, serve to show:

Hillier: Pus left in the pleura may be enclosed in a dense pyogenic membrane, the fluid portion becoming absorbed.

West: The fluid very speedily becomes purulent, and

consequently inapt for absorption, though by no means incapable, as was once imagined, of being absorbed. The possibility of the absorption of pus is indeed no longer disputed, but at the same time pus is inapt to be absorbed, and its absorption is sure to be tedious.

Steiner: Purulent effusion, whether free in the cavity or sacculated, may become absorbed.

I. Louis Smith ("Diseases of Infancy and Childhood," fourth edition, 1879): In empyema the patient cannot recover by absorption of the pus unless its quantity is small. If the pus is in such quantity as to be apparent to the naked eye, recovery is slow and uncertain, and usually impossible. Suppurative pleuritis or empyema is in time fatal unless the pus is evacuated.

W. H. Day: An empyema when left to itself may dry up and disappear by absorption.

Vogel, in a matter-of-fact way, speaks of the absorption of a purulent pleuritic exudation as of relatively frequent occurrence.

Ellis ("Diseases of Children," third edition, 1879) and Tanner ("Diseases of Infancy and Childhood," 1861) do not allude to the matter in any way.

Meigs and Pepper ("Diseases of Children," fifth edition, 1874): In these unfortunate cases (of empyema) the most favorable result that can be hoped for is that the pus will either evacuate itself externally, or open into the lung and be expectorated.

Condie ("Diseases of Children," fourth edition, 1853): Extensive effusion will often be entirely absorbed if it consists chiefly of serum; but when purulent, it sooner or later causes the death of the patient.

It being thus established that even a large accumulation of pus in the pleural cavity may be removed by absorption by the unaided efforts of nature, the question arises whether such a result is the most desirable one under the circumstances. Taking into account the length of time which must necessarily elapse before full expansion of the lung can be thus effected, and the increased liability to permanent pathological changes to which it is exposed in a state of compression, I consider the indication plain to restore the normal relation of the parts concerned as speedily as possible. I think the result in Willie B——'s case would have been a more satisfactory one, and that his chances of escaping phthisis would have been fair, had evacuation of the pus been practised. That the pleural abscess would have behaved kindly after operation may be inferred from the readiness with which the pyarthrosis germ healed under such disadvantageous circumstances.

Dr. Joseph Schnetter, of this city, related to me in conversation two cases of empyema in children, occurring in his practice, in which after a single evacuation of the pus by the aspirator, the patients progressed to full recovery. Authors are at present agreed as to the propriety of paracentesis thoracis in cases of purulent pleuritic effusions, and I think I would, in my next case, first aspirate the thorax, and if the fluid, after the operation, reaccumulated, I should then proceed to free incision. West dreads the drain following free incision, preferring on that account repeated paracentesis. This objection is obviated by the employment of the antiseptic system. In the case of Joseph P——, I should estimate the quantity of pus lost from the second dressing, on the day following the operation, until final closing up of the wound, at certainly not more than six ounces.

THE DRY MOUTH OF THE LITHOTOMIST.—At a recent clinic, Prof. Brinton said that an attendant of lithotomy is dryness of the surgeon's mouth, similar to that produced by belladonna; and Prof. S. D. Gross remarked: "It is peculiar to the operation for stone; I have often felt it." A thesis showing the relation of a stone in one man's bladder to the salivary glands of another man would probably take the Lea prize.—*Col. and Clinical Record.*

Progress of Medical Science.

THE ACTION OF DRUGS ON THE RESPIRATORY MUCOUS MEMBRANE.—Petrone (*Lo Sperimentale*) has repeated the experiments of Rossbach and Aschenbrandt as to the action of different drugs upon the mucous membrane of the respiratory apparatus. In these experiments the trachea was opened and the changes of the mucous membrane under the influence of the drug directly observed. The first experiments were with alkaline substances and the salts of ammonia.

After the injection of two grammes of bicarbonate of soda into the blood, Petrone observed that the mucous membrane became pale and of a grayish tint; whilst under normal circumstances the trachea, when the mucus was wiped off, became covered again in about two minutes. After the injection of bicarbonate of soda there were only a few drops of mucus after eight or ten minutes. If the mucus was again removed, it did not reappear, the mucous membrane remaining dry and anæmic. From this it appears that an alkaline state of the blood hinders or completely stops secretion of the tracheal mucous membrane. Petrone agrees with Rossbach that this fact depends upon the action which the sodium salt exerts upon the vaso-motor and secretory nerves, the consequence of which is anæmia of the mucous membrane and atony of the glands. Hence it follows that the favorable action which is produced by the alkalies on catarrh of the respiratory apparatus depends especially upon their action upon the hyperæmia of the mucous membrane and on the secretion of mucus. Unless a one or two per cent. solution of bicarbonate of soda is used (experiments on cats) no striking change was observed. If an extended area of the mucous membrane was bathed with a solution of ammonia, an extended hyperæmia was observed, and the secretion increased in considerable quantity. From these facts the natural conclusions are that the inhalation of sodium salts, which is practised in acute and chronic bronchitis in order to lessen the mucous secretion, has no favorable influence; the most that could be expected is that the secretion might become thinner and more easily expectorated. Inhalations with solutions of artificially prepared ammonia may be useful in dry and chronic catarrh, but disadvantageous in the acute varieties. Local applications of acetic acid had a similar effect to applications of ammonia solutions, and the therapeutical indications are, therefore, the same. The local application of astringents, as tannin and alum, produced after four or six minutes a marked paleness of the tracheal mucous membrane. Solutions of nitrate of silver (up to four per cent.), used on the tracheal mucous membrane of rabbits, guinea-pigs, and dogs, produced a similar effect. The epithelium became dry and all secretion was stopped. No diminution of the vessels could be observed. If the nasal cavity and pharynx was bathed with a four per cent. solution of nitrate of silver, a considerable degree of hypersecretion of the mucous glands was observed in these regions. Application of this solution to the larynx produced, on the contrary, a feeling of dryness in that organ in about half an hour. It is to be concluded, therefore, that inhalations of tannin, alum, and nitrate of silver are indicated in catarrh with hypersecretion. When a turpentine-oil spray was directed upon a circumscribed portion of the respiratory mucous membrane, the secretion was at first lessened and then completely checked. The results were entirely different, however, when a mixture of spirits of turpentine and water—1 or 2 to 100—was applied to the same membrane. There was then hypersecretion and vascular depletion. Consequently it appears that the action of turpentine on the respiratory mucous membrane is specific and characteristic. It calls forth the secretion and causes contraction of the vessels and anæmia of the mucous membrane. By this property is explained the

favorable action of turpentine sprays upon chronic catarrh with swelling of the mucous membrane and the resorption of chronic exudations. It may also be assumed that when given internally it assists the action of the spray.

Apomorphia, pilocarpine, and emetine cause considerable increase of the mucous secretion. In experiments upon dogs and cats crepitant râles were heard over the lungs. The tracheal mucous membrane was always swollen, the superficies showing a granular condition. Section of the laryngo-tracheal nerves did not hinder the increased secretion. These drugs are indicated, then, in dry catarrh and croup. Pilocarpine, which causes secretory troubles in the whole living structure, must be used with caution. Atropine causes a great deal of dryness in the tracheal mucous membrane; the secretion being completely checked in the course of forty or fifty minutes, while the mucous membrane is hyperæmic. The same characteristic dryness is produced after section of the laryngo-tracheal nerves. It is evident, therefore, that the action of atropia is exerted upon the mucous-forming cells and upon the terminal nerve-filaments which preside over the mucous secretion. Hence it appears that the action of atropine on catarrhal conditions is not due to its anæsthetic properties, but to its action on the secretion of mucus. Morphia decreases the mucous secretion to a slight degree and diminishes reflex irritability. Morphia and atropia, applied at the same time, produce their special actions, and their combined use is indicated in troublesome catarrhal conditions with much secretion.

The Treatment of Volvulus.—When there is intestinal obstruction due to twisting of the sigmoid flexure, its reduction is readily effected after abdominal section, but it sometimes happens that the intestine becomes again twisted after the operation has been completed. To obviate this danger Dr. W. Roser, in an article in the *Centralblatt für Chirurgie* of October 27, 1883, advises that the colon be fastened by sutures to the abdominal wall. Several sutures must be used, passing through the mesentery on one side and the peritoneum of the left abdominal wall on the other, in such a way that the upper part of the flexure, which seems to be the most movable, shall be kept slightly raised. In the same way the mesocolon might be fastened up after the reduction of an intussusception by means of laparotomy, when a return of the invagination was to be feared.

Disadvantages of Kairine in Pneumonia.—Dr. Riegel advises against the employment of kairine in pneumonia. Independently of the fact that the danger in pneumonia does not lie in the high temperature, the antipyretic effect of the drug in this disease is very slight. It was not always possible to reduce the temperature to the norm even with large doses of kairine, and when this result was obtained the fever would often return quickly in spite of a continued administration of the remedy. The influence upon the frequency of the pulse was still less marked. The chief inconvenience of the kairine treatment, however, lies in the fact that it often causes a most threatening state of collapse, and it was an occurrence of this kind that induced the author to desist from any further employment of the drug.—*Centralblatt für Klinische Medicin*, November 10, 1883.

The Relation between Œdema and Disease of the Kidney.—One of the chief grounds upon which Cohnheim rejected the theory of the hydræmic nature of anasarca in acute nephritis was that he had never succeeded in producing it in dogs after the artificial production of very marked hydræmia. Dr. Gärtner has, however, obtained different results upon repeating these experiments. He found œdema of the skin after the slow injection of a solution of common salt. He used an excessive quantity of the solution. In one case, in which the dog weighed about 65 ounces, he injected in the course of four hours 62 ounces of the saline solution.—*Centralblatt für Klinische Medicin*, October 13, 1883.

Medicated Injections into the Uterine Tissues.—Dr. Schücking makes injections into the uterine substance by means of a syringe similar to the ordinary hypodermic syringe, only with a much longer needle, so that the point may be inserted into the neck of the womb through an ordinary cylindrical speculum. He has in this way made injections of ergotine and Fowler's solution in the case of uterine fibroids, and in subinvolution of the uterus. In hyperplasia of the neck and hypertrophy of the cervical glands he uses tincture of iodine. Injections of a mixture of tincture of iodine, Fowler's solution, and carbolic acid have been employed to combat inflammation of the uterus.—*Bulletin Général de Thérapeutique*, October 30, 1883.

Fracture of the Skull by Contre-coup in the Fœtus.—This accident has been hitherto regarded as impossible, owing to the peculiar formation of the cranium of the new-born. Dr. Pericle Sacchi has, however, recently made some experiments (*Journal de Médecine de Paris*, November 17, 1883) which go to prove that fracture of the skull may, under certain conditions, be produced by contre-coup in the fœtus.

Icterus during Pregnancy.—At a recent meeting of the Académie de Médecine, Dr. Queirel presented a communication upon the etiology of jaundice occurring during pregnancy. He mentioned three varieties: 1, That occurring at the beginning of pregnancy, and dependent upon a morbid state of the alimentary canal; 2, icterus occurring toward the end of pregnancy, due to compression of the excretory ducts; 3, jaundice met with at any period of pregnancy depending upon disease of the liver itself.—*Gazette des Hôpitaux*, November 22, 1883.

Iron in the Treatment of Skin Diseases.—Dr. Casarini has employed the perchloride of iron with advantage in a large number of chronic skin affections. He uses an ointment of from one to three grams of perchloride of iron to thirty grams of lard. He concludes from a number of observations that: 1, Perchloride of iron (internally administered) is the most efficacious agent in the treatment of simple or hemorrhagic purpura; 2, it is very useful to combat the anæmia which often accompanies certain cutaneous affections, such as rupia, ecthyma, and impetigo; 3, its external employment gives excellent and speedy results in ulcers of scrofulous and syphilitic origin; 4, in the form of ointment it constitutes a good remedy in the squamous skin diseases, especially in psoriasis.—*Journal de Médecine de Paris*, November 24, 1883.

Glycerine in Fevers.—Dr. Mariano Semmola opposes the exhibition of the salicylates, phenic acid, or alcohol in acute pyretic conditions, admitting the latter only in cases of great depression or threatening paralysis of the heart. He thinks that he has found in glycerine a substance which may be advantageously substituted for these remedies. The following is the formula used by him:

℞. Glycerinæ..... ℥ i.
Acid citrici aut tartarici..... ʒ ss.
Aq ..... ℥ vi.
M. Sig.—One or two tablespoonfuls every hour.

This mixture tastes good, is readily taken by the usually thirsty patients, and is very well borne. The author employed this remedy in several cases of typhoid fever with very good results. In most of the cases the exhibition of the glycerine was followed by a decrease in the daily excretion of urea varying from ninety to one hundred and fifty grains.—*Allgemeine Medicinische Central-Zeitung*, December 1, 1883.

THE MEDICAL RECORD:

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GEORGE F. SHRADY, A.M., M.D., EDITOR.

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UNSATISFACTORY MEDICAL SERVICE ON TRANSATLANTIC STEAMERS.

DURING the past two years the unsatisfactory medical service on transatlantic steamers has received much attention from the British press, and has formed the subject of strong resolutions by prominent English societies. The British Medical Association, which appears to have thoroughly investigated the subject, has presented a memorial to the President of the English Board of Trade, which "respectfully showeth that the medical and sanitary administration of ocean steamers, especially of those engaged in the North Atlantic emigrant trade, is often seriously defective, whereby many lives are annually sacrificed." And more recently a deputation from the Association, supported by several well-known Members of Parliament, interviewed the same functionary, with no more encouraging result than an indefinite promise that the subject would be remembered in the coming shipping bill.

Our British contemporaries remind us that it is we who are most interested in this matter, that the battle they fight is mainly for the health interest of our citizens as opposed to the money interests of their own, and that we should be up and doing on our own behalf. Nor shall we be slow to take the hint. In another column we publish a letter from Dr. J. A. Irwin, who has been the leader of the movement in England, and who seems to be convinced that pressure from Washington may be required to enforce necessary reforms upon unwilling ship-owners. Statistics show a high mortality upon Atlantic steamers. Dr. T. Turner's ten years' report of vessels entering New York, proves a death-rate more than double that ordinarily occurring in our great cities; and English Parliamentary returns admit a mortality far exceeding the necessities of transit. And this among persons enjoying exceptionally high vital conditions.

If, as there seems every reason to believe, a part of this excessive mortality, or of the concomitant health depression, may be attributed to inadequate medical arrangements and inefficient sanitary administration on ship-board, then the ship-doctor grievance merges into a question of first importance to the nation, and should without delay become the subject of sweeping legislation by Congress. It is certain that the present system is rotten in principle, and often disastrous in results. The ship-surgeon is appointed, not by any responsible authority in the interest of the passengers, but by the owners of the ship, who have no practical concern in his competency, and who select him, we are informed, "with little regard to age, experience, qualification, or character."

As a matter of fact, of 135 different medical officers who during the first six months of 1882 had full medical charge of 104 British steamers, carrying emigrants to this country, no less than 54 would have been ineligible through lack of the minimum professional qualification for the most junior medical appointment in the English army, navy, poor-law, prison, or asylum services; and but 27 of the entire number possessing any qualification as physician and surgeon had reached their thirtieth year.

And it should not be supposed that because our English friends have insisted upon the publication of official reports, the British steamers are necessarily worse than their competitors in these respects. On the contrary, judging by results, British vessels stand first upon the list. When the ship-surgeon, thus appointed, enters upon his duties he finds himself surrounded by insurmountable difficulties.

The hospitals are generally insufficient, often ill-placed, and are not unfrequently taken from his control and devoted to other purposes than the accommodation of the sick. He is allotted quarters without regard to his health, personal comfort, or the possibility of efficiently discharging his professional duties. Let a single example suffice: On the latest addition to a splendid fleet, carrying annually its thousands upon thousands, the surgeon's room measures five feet eleven inches by five feet three inches, is without any window or port-hole, and is situated below in a narrow thwart-ship passage, the door being opposite to and within thirty inches of the passengers' water-closets. The surgeon is denied authoritative control in even the most purely sanitary matters. He is allowed no assistance, no dispenser, no hospital nurse, and no servant; and thus in the early days of bad weather and general sickness he finds himself face to face with duties so numerous and so heterogeneous that no person could possibly perform them satisfactorily. His salary never exceeds fifty dollars per month.

All this may have been tolerable so long as the position of ship-surgeon was really a sinecure, demanding no special qualification and offering advantages to those who, from delicate health or otherwise, desired sea-travel. It is evident, however, that the medical charge of fifteen hundred or two thousand passengers, under all the hazardous circumstances of the transatlantic voyage, is an onerous and important duty, requiring all the qualities deemed necessary in a high-class public official, together with a thorough knowledge of all branches of medicine; and that valuable lives should be risked to save the ship-owners the cost of suitable sanitary arrangements and a competent physician is absolutely monstrous.

Dr. Irwin suggests the example of the British Colonial Government, who, it appears, insist upon appointing their own medical superintendent to every vessel carrying emigrants to the Colony. Something must be done, and there seems to be no legitimate reason why Congress should not enforce the same privilege.

THE COUVEUSE POUR ENFANTS.

It is now somewhat over two two years since M. Tarnier put into practical use his *couveuse*, or artificial "brooding-hen," for feeble and immature infants. Various and incomplete descriptions of this apparatus and its work have been published, and strange misconceptions of what the *couveuse* is, and what it is intended to do, have got abroad. It is with much satisfaction, therefore, that we have received a monograph covering fully this subject, by M. A. Auvard, interne at the Maternité de Paris, where the couveuse was first introduced and is now being used. M. Auvard has given, in an intelligent and apparently impartial manner, a description of the construction and mode of use of the couveuse, and the results obtained from it in the hospital.

The *couveuse* used in the Maternité consists essentially of a wooden box, with double walls, for the purpose of retaining the heat better. This box is 95 ctm. long, 70 ctm. wide, and 85 ctm. high, and rests upon a pedestal. It is divided into two compartments, an upper and a lower, by a horizontal partition. The lower and larger compartment contains a reservoir of metal for holding warm water, the upper compartment contains the cradle for the infant.

The water-reservoir holds about eighty litres, and is heated by a lamp, or it may be put in connection with a large reservoir and be constantly fed in this way.

The upper compartment is covered by a double movable glass slide. It is in communication with the lower compartment, and also with the outer air. The reservoir being filled with boiling-water, air passes in at the bottom of the box, ascends around the heated reservoir, enters, warmed, to the upper compartment, and passes out through orifices in the top of the couveuse.

In cold weather the water in the reservoir is kept at a boiling temperature for two hours three times a day. This suffices to keep the temperature in the upper compartment, where the infant lies, at about an average of 30° C. (86° F.). This is found to be the best temperature on the whole, although at the beginning of treatment it may be raised to 34° C., or even 35° C. (93-95° F.).

In Tarnier's couveuse the heat is not maintained constantly at the same point. Dr. Budin, at La Charité, however, has devised an apparatus by which this object is attained.

Apart from its confinement most of the time in the couveuse, the care of the infant does not differ very much from that ordinarily employed. If practicable, the child is nursed by the mother, during which process it is taken from its hatching-house and exposed to the ordinary air of the ward. It is clothed in the usual manner, and receives a bath daily.

The clinical results obtained by this process of baking babies are naturally the points of main interest. The couveuse is not intended for the cultivation of giants, as has been facetiously suggested; but for preserving and strengthening the vitality of infants born before term, or congenitally feeble; for infants suffering from œdema and cyanosis, respiratory troubles, etc. The total number of cases treated—perhaps we should say, heated—by Tarnier and Auvard is 151, the duration of the "incubation" being from one to forty or more days.

The results can be shown best by the following table:

	Total.	Discharged living.	Died.
Infants born before term	93	62	31
Weakness	6	4	2
Cyanosis	5	5	0
Œdema	25	21	4
Respiratory disturbances	5	2	3
Apparent death	4	3	1
Athrepsia	3	1	2
Syphilis	4	4	0
Obstetrical injury	2	2	0
Fracture	1	1	0
Congenital malformation	3	0	3
	151	105	46

The couveuse seems to have been especially efficient in cases where there was imperfect development, as in very small or prematurely born infants. This is well shown by comparative statistics of infants born weighing 2 kilogrammes or less.

Total treated in couveuse, 79; living, 49; dead, 30; mortality per cent., 30. Without couveuse, in Maternité de Cochin, 30; living, 10; dead, 20; mortality per cent., 66. Without couveuse, in Maternité de Paris, 116; living, 40; dead, 76; mortality per cent., 65.

These figures show that the couveuse reduces the mortality in this class nearly one-half, which certainly speaks most eloquently for its usefulness.

M. Auvard has made some studies as to the effect of the new apparatus upon the pulse respiration and temperature. Of these we can only say in brief that the essential physiological change produced is an increase in the superficial temperature of the infant.

In conclusion, it appears that the couveuse has done enough to establish a claim for its wider trial by the profession. It is undoubtedly superior to the apparatus for prolonged baths devised and used by Winckel. A simpler and smaller couveuse can be made than that used in the Maternité. It is not impossible that the simple use of large cans of hot water in or about the infant's bed may be almost as efficacious as the more elaborate devise of the couveuse.

MEDICAL LEGISLATION IN VIRGINIA.

The Legislature of Virginia is to be urged to pass an anatomy law similar to the one in Pennsylvania, and a bill has been framed and introduced for this purpose. It is expected that by the passage of this bill the robbing of graves will be prevented, and that medical students will be provided in a legitimate manner with material for dissection.

A bill is also now before the Virginia Legislature, dealing with the subject of the regulation of the practice of medicine. The bill provides for an Examining Board composed of gentlemen who are nominated by the State Medical Society and appointed by the Governor—or else appointed by the Governor independently. Every person who commences to practise medicine in Virginia after January 1, 1885, will be obliged to be examined by the Board and to register his name in the County Clerk's office.

The bill is apparently a very poor one, and is another product of the present craze for medical registration laws.

The medical profession ought to bear in mind the fact that a law compelling a legal registration of physicians will not be of necessity a benefit to any class but the quacks. Good registration laws are most useful, but bad ones are most pernicious. Registration laws should have as their main object the prevention of quackery and imposture. The proposed Virginia law is very vague in its requirements, and its effect will be apparently to give a legal standing to every one who is now assuming to practise medicine in Virginia.

THE SIMS MEMORIAL FUND.

THE proposition for erecting a monument to the late Dr. Sims meets with universal favor. Already substantial proofs of this are manifesting themselves from different parts of the country. The contributions range in amount, thus far, from one dollar to one hundred, and already make a good showing. At the next meeting of the Executive Committee definite plans will be laid for systematizing collections and giving due publicity to the project. The publication of list of subscibers will then be commenced in THE RECORD, and additions thereto published from time to time. In the meanwhile the medical journals throughout this and other countries are invited to aid the Committee in any way that may be deemed advisable. The end in view would be very efficiently met if the editors of such periodicals would kindly consent to appeal to their subscribers, and forward the amounts thus collected to the treasury of the fund. Acknowledgments for the same would be gratefully acknowledged by the Committee. The same invitation is extended to members of the general committee in different States who have opportunities for bringing the matter before the medical and lay public in their different localities. It is not intended that subscriptions should be restricted to members of the profession, but to all former patients of Dr. Sims who may feel that they owe to him a debt of gratitude for skilful services rendered. Already several prominent ladies in this city are interesting themselves in the movement, and the promises are good for large subscriptions through their instrumentality. No restrictions will be placed on them regarding any means they may adopt to secure the end in view, and the aid which they can give the Committee cannot be too highly appreciated. In fact, such testimonials from women would be an earnest of the highest appreciation of the labors of one who devoted his genius to the amelioration of their numerous and distressing ailments.

THE LIMITS OF MEDICAL ADVERTISING.

WE regret very much to find that the venerable editor of the *Journal of the American Medical Association* persists in his advocacy of medical advertising beyond what appears undoubtedly to be safe and proper limits. The points at issue are very simple and are briefly these :— The *Journal* in question says :

First, that a doctor can publish or use a professional card as freely as he likes.

Second, that a doctor can add to his professional card the notice "practice limited to" any particular branch or branches of medicine that he likes.

We venture to protest against this and to assert that, if the physician were inclined to measure his conduct by the letter of the law thus laid down, there would be practically very little limit to the amount of advertising which he could legitimately do. It is useless to talk about what Dr. Davis really means, or what the term a "professional card" usually signifies.

We simply criticise what our contemporary says; and it was in effect this: that a doctor can publish his card in the newspapers as much and as often as he likes, dotting a whole page over with it; and he can even hire a man to stand on the street corner and "distribute the cards as freely as he chooses."

This is the license which our contemporary's words give, and we protest against it. If the editor does not mean it, or if it is one of those typographical errors which the editorial columns of our solecistic contemporary have heretofore been so largely devoted to explaining, very well. Certainly we are very loath to believe that our venerable friend is devoting the last years of his useful life to the authoritative support of the view that physicians may "publish and use their professional cards as they like."

To the second point we also take exception. We are inclined to think that the permission graciously granted by the Association, to allow the words "practice limited to" to be added to the card, is silly rubbish. At the same time, if it means anything, we reiterate that its meaning is very little severed in the lay mind from "practice special." According to Webster, *special* means "limited in range," in other words "limited," and the novel definition of *special*, which our contemporary gives as something "unusual or superior," is quite a lexicographical revelation, or perhaps another typographical error. The standard dictionaries at any rate support the view which would be ordinarily taken, that specialists could trade on the suffix "practice limited" as well as on any other.

They do not do it because, as we are glad to believe, doctors are better than their code. And it is quite a gratuitous insult for our contemporary to say that ambitious young specialists would gladly avail themselves of the ethical privilege of announcing themselves on their cards as such.

We can recapitulate the whole matter best perhaps by an illustration. Thus :

DR. SMITH JONES,
No. 4000 WABASH AVENUE, CHICAGO.

Practice limited to venereal diseases and loss of manhood.
Office hours: 9 to 2.

Form of card authorized to be printed, published, distributed, and used as freely as is wished, by the editor of the *Journal of the American Medical Association*.

In conclusion, we regret that our venerable friend should conclude the extraordinary defence of his awkward and untenable position by descending to disingenuous personalities and misrepresentations.

In its long career THE RECORD has always tried to show that it had the best interests of the profession at

heart; we are not called upon now, therefore, to defend ourselves against the insinuations of the venerable editor of the very immature periodical published, as we had thought till lately, in the interest of the American medical profession.

A FEW WORDS ABOUT THE INDEX MEDICUS.

An appeal has again been made for the support of the *Index Medicus*. Most of the medical journals have taken the matter up and have earnestly urged its claims upon the profession.

It is a little strange that a periodical of such reputed value should meet with so little substantial aid. We are of opinion that some judicious criticism is one of the things that it needs even more than the indiscriminate praise which has heretofore been paid to it.

Every one must acknowledge that the *Index Medicus* represents a vast deal of intelligent and conscientious labor. But it is also true that from another point of view it is a monumental piece of journalistic dulness and bibliographical inutility.

In the first place the *Index Medicus* need not and should not be published monthly. Now, if a physician wishes to look over the literature of a subject for five years, he must look over sixty different pamphlets. In the time which this occupies he could consult the index to twenty leading medical journals.

The bibliographical appendices of *Schmidt's Jahrbücher* are published only quarterly, while those of Virchow and Hirsch's *Jahresbericht* appear semi-annually, as do those of other journals of this class.

The profession does not need a monthly bibliography.

Again, the references in the *Index Medicus* appear to be ingeniously devised, in order to destroy as much as possible their practical utility. There is no subject-index, properly speaking. If one wishes to look up the subject of the liver, for example, he must go through innumerable monthly volumes, looking under the heads of surgery, medicine, anatomy, physiology, etc. If he is not familiar with French and German, he is still more in trouble. In fact, life is too short for the profitable use of the *Index Medicus* in very many directions. The large German, English, and French Year-Books publish subject-indices, with which one can, in a very short time, find out all that days of study of our American journal could give.

In fine, then, let the managers of the *Index Medicus* adopt intelligent methods in the making up of their journal. Let them give the profession an annual or a semi-annual volume with a subject-index. With such changes the *Index Medicus* will deserve the support of the profession, and, we believe, will get it. As it is now, it is an example of a well-meant but comparatively useless monthly bibliography.

The Hospital Collections.—We are happy to state that since last writing, a week ago, the hospital collections have received much larger additions than we had anticipated. The total sum reported last was $40,082.03. It seems possible now that the amount may equal or exceed the highest previously received. Two hundred and ten churches contributed, against ninety-four last year.

News of the Week.

The "Ephemeris" and the Medical Society of the County of New York.—Our esteemed contemporary the *Ephemeris*, in its last editorial item in the number for January, 1884, unintentionally makes a misstatement concerning the Medical Society of the County of New York. It says: "At the next succeeding meeting the addresses of the retiring president and the new president were made, and other matters of interest were on hand, but the meeting was not so large. Just about sixteen persons were present, and of these four were reporters, the two presidents making two others of the sixteen." In the above quotation reference is make to the adjourned annual meeting with the stated meeting held November 26, 1883. If the writer of the article, which also contains an uncalled-for slur, had taken pains to obtain reliable information concerning the number of persons present at those meetings he would have had the pleasure of learning that sixty instead of sixteen were in attendance. It is also worthy of note that at the stated meeting of that evening fifteen new members were elected, and that certificates of membership were presented to twenty members, all helping to swell the "sixteen."

Dr. M. M. Lewis, a prominent physician of Alexandria, Va., died on January 20th at the age of fifty-nine.

Nightcaps and Dreams.—Dr. J. Mortimer Granville, of London, has been urging the use of the nightcap as a preventive of dreams. Apropos, a correspondent of the New York *Times* urges the use of the corset as a preventive of "taking cold."

The Cost of Cremation at Gotha is about $50. The cost of the crematory was $25,000.

Dr. Roswell Park has resigned the editorship of the *Weekly Medical Review* to the former assistant editor, Dr. Robert Tilley.

The Meeting of the New York State Medical Society.—Members and delegates of this city and Brooklyn intending to go to Albany, can get round-trip tickets at reduced rates by sending their names to Dr. C. L. Dana, 66 West Forty-sixth Street, Secretary of the New York County Delegation.

We are informed that the New York Central and the West Shore railroads will probably give reduced rates to physicians coming from other parts of the State.

Death of Robert B. Tolles.—The most eminent maker of microscopic objectives in the world died in Boston, on December 17th, aged sixty-two years. His death seems to be an irreparable loss to science.

National Medical University.—A bill has been introduced into the United States Senate to appropriate $1,000,000 as an endowment for a National Medical University at Washington, and $100,000 additional for ground and buildings. The bill proposes to recognize all forms of practice.

Leprosy and Elephantiasis are common and widespread throughout Mexico, and is most abundant in the States of Mexico and Sonora. It occurs mostly in the tubercular and anæsthetic forms, though the macular is often found.

THE ARCHIVES OF MEDICINE is to be continued, as heretofore, under the direction of Dr. E. C. Seguin.

PROFESSOR HUXLEY is to receive a baronetcy.

THE NEW YORK INFANT ASYLUM.—At the last meeting of the Board of Managers the following officers were elected: *Honorary President*—Joel Foster; *President*—Clark Bell; *First Vice-President*—A. S. Hatch; *Second Vice-President*—W. H. Guion; *Secretary*—Richard B. Kimball; *Treasurer*—Levi M. Bates; *Executive Committee*—Levi M. Bates, Clark Bell, William N. Blakeman, Joel Foster, William H. Guion, Richard B. Kimball, Archibald Turner, Benjamin A Willis, and A. S. Hatch. Of the other committees chosen Mr. Bates is Chairman of the Finance Committee, Dr. Foster of the Committee on Adoption, and Mr. Turner of the Auditing Committee. The Medical Board elected is as follows: W. R. Birdsall, A. N. Bell, F. H. Bosworth, Edward Bradley, C. L. Dana, George B. Fowler, William F. Mittendorf, William J. Morton, Henry G. Piffard, O. D. Pomeroy, F. M. Warner, H. Marion Sims, J. Lewis Smith, J. Clarke Thomas, William H. Welch, Charles F. Stillman, and J. S. McNamara.

THE CARTWRIGHT LECTURES OF THE ALUMNI ASSOCIATION OF THE COLLEGE OF PHYSICIANS AND SURGEONS will be delivered by Professor Burt G. Wilder, M.D., of Cornell University, in the hall of the Young Men's Christian Association, corner of Fourth Avenue and Twenty-third Street, on the evenings of Saturday, February 2d, Monday, February 4th, and Wednesday, February 6th. General subject: "Methods of Studying the Brain." February 2d, Limitation of the subject to macroscopic encephalic morphology; methods of regarding the brain based upon its condition in embryos and in amphibia. February 4th, Methods of preserving and examining the brain. February 6th, Methods of figuring and describing the brain.

THE COLLEGE OF MIDWIFERY AGAIN.—We have received a letter from Dr. John Alsdorf, stating that he has resigned unconditionally from the College of Midwifery and has severed all connection with the institution. This he did as soon as he could after the publication of the "confidential cards" and pamphlet. Dr. Alsdorf sends us also a full account of the history of the College, but his letter was received too late to be published in full. He states, what we do not doubt, that the institution was founded in good faith and to fulfil a useful purpose. He acknowledges himself to be the author of the pamphlet, "Woman's Field of Work," and defends its character. It was, he said, intended to reach a class other than medical men and to interest them in opening up the new field for women.

He continues: "The insertion of advertisements in the book has also been criticised. It being considered perfectly legitimate for most medical journals to reduce the expenses of publication in this manner, it is unnecessary to say anything further on this point. As to the recommendation of certain articles in the text, I believe there were five in number, an 'Infant's Food' and 'Malt Extract' (endorsed by Professor Lusk in his work on 'Midwifery'), a 'Medicinal Wine' (endorsed by Professor Bartholow, in his work on 'The Practice of Medicine'), and a 'Tar Soap' and 'Disinfectant,' which have received the universal endorsement of the profession for the purposes for which they were recommended. The 'circular' and 'confidential card' met with my disapproval when first presented; but, being in the minority, my only remedy was to withdraw and sever all connection with the college, which I have done."

We can only say now, in reference to one point, that because a gentleman recommends some article in a systematic treatise, no one has a right to append it to an advertising circular.

PROFESSOR REICHERT, late Professor of Anatomy in the University of Berlin, died recently at the age of seventy-three. He has been succeeded by Waldeyer, of Strasburg.

M. DAMASCHINO has been made Professor of Internal Medicine in the Faculty of Medicine of Paris.

WOMEN PHYSICIANS IN THE PARIS HOSPITALS.—At the recent competitive examinations for the post of *externes* to the Paris hospitals, three women physicians passed successfully. There were 254 candidates. Madame Sarrante passed sixth, and Madame Chopin one hundred and forty-second.

THE NEW UNIVERSITY AT PRAGUE.—The medical department of the new University at Prague has been organized and the professors appointed. Among these Spina, of Vienna, and Tomsa, of Kiel, are best known.

AUTOBIOGRAPHICAL NOTES BY THE LATE DR. J. MARION SIMS.—In *Harper's Monthly* for February is an interesting story by the late Dr. J. Marion Sims, entitled "Lydia Mackey and Colonel Tarleton." It is a revolutionary sketch, and is taken from autobiographical notes left by Dr. Sims, who was a great-grandson of Mrs. Mackey.

A DENTAL INSTITUTE is to be added to the Berlin University, and plans for its organization have been submitted to the medical faculty.

A NEW DECISION UPON THE MEDICAL LAW OF NEW YORK.—The County Medical Society recently brought suit in the Court of Special Sessions against a Dr. Desiré A. Protin, for practising medicine without first having had his diploma countersigned by a medical college in this State. The defendant made the plea that the possession of the diploma was sufficient, but this was denied by the Court and decision rendered against him. Appeal, however, was made and the decision reversed in the Court of General Sessions. Accordingly, as matters stand now, the provision of our medical law, which obliges medical graduates from other States to have their diplomas countersigned, is void.

LEGISLATION FOR THE EXTINCTION OF PLEURO-PNEUMONIA.—The Chairman of the House Committee on Agriculture, on January 15th, submitted a memorial signed by a number of dealers in live stock, asking for legislation to protect their interests. The memorialists refer to the losses which the live stock interests of the country suffer by reason of the restrictive regulations now enforced by foreign governments against the importation of American live stock and meat products. They ask Congress to provide means for the extinction of pleuro-pneumonia, and this they say can only be done by the slaughter of all infected cattle. The memorial further

says that the members of the United States Cattle Commission, who have made a very thorough examination of this subject, estimate the expense of such a measure at $1,500,000. In the opinion of the memorialists not more than $500,000 need be made immediately available. The memorial further recommends, with a view to removing the prejudice of foreign customers, that a rigid system of inspection of all meat products for export be provided for and enforced, the expense of such inspection to be borne by the exporter.

THE *Kansas City Medical Record* is the title of a new monthly journal published in Kansas City. It has a better appearance than most Western monthlies.

NEW JOURNALS.—The *Archives of Pædiatrics* is the title of a new monthly journal devoted to diseases of children, edited by Dr. Watson, and published in Jersey City. Its first issue is well made up and contains a number of valuable papers.

NEW HAVEN MEDICAL ASSOCIATION.—The annual meeting of this society was held Monday evening, January 7, 1884. The report of the Secretary showed that during the past year twenty meetings had been held, at which the average attendance was sixteen. The membership is smaller by three than a year ago. Two members have removed from the city and one has been expelled, leaving fifty-one active members in the association. The following officers were elected: *President*—Dr. Frank E. Beckwith (second term); *First Vice-President*—Dr. W. R. Bartlett; *Second Vice-President*—Dr. M. A. Cremin; *Secretary and Treasurer*—Dr. H. Fleischner; *Prudential Committee*—Drs. M. C. O'Connor and W. O. Ayres; *Financial Committee*—Drs. Francis Bacon and T. P. Gibbon.

THE MEDICAL SCHOOL OF MAINE.—Efforts are making to secure the removal of the Medical School of Maine from Brunswick to Portland.

DEATH OF DR. HENRY A. DU BOIS.—Dr. Henry Augustus Du Bois, a native of, and for many years a resident of this city, died January 13th, at his residence in New Haven, Conn., where he has made his home since 1854. Dr. Du Bois was born in this city, August 9, 1808. He graduated from Columbia College in 1827, and from the College of Physicians and Surgeons in 1830. He then went to Europe, where he studied for three years. In 1834 he began practice in New York City, and speedily attained much prominence, largely because of his enthusiastic defence of many novel practices and opinions which he had gathered from his European experience. Dr. Du Bois became especially prominent during the scarlet fever epidemic of 1838. He then took a stand in the treatment of this disease directly contrary to the laws set down in the books and the theories in practice. He considered the epidemic as asthenic in character and unsuited to the severe antiphlogistic treatment which then prevailed. He held the disease to be determinate, and that it must run its regular course. He disbelieved the idea that the disease could be "jugulated" by active treatment. He is said to have been very successful in his treatment—quinine and a supporting regimen—while those who held to the antiphlogistic system were less successful in their practice. In 1840 Dr. Du Bois abandoned the practice of medicine. Since then he has been engaged in mercantile, scientific, and literary pursuits. He was a member of the New York Lyceum of Natural History, and of the New Haven County Medical Society. He received the degree of LL.D. from Yale College in 1864.

MEDICAL LEGISLATION AT WASHINGTON.—A number of bills relating to medical matters have been introduced into the Senate or House of Representatives.

A bill has been introduced into the Senate which aims to create a Bureau of Animal Industry, which Bureau shall supervise matters of cattle quarantine, veterinary police, and sanitation.

A bill appropriating $200,000 for the erection of a fire-proof building for the use of the Army Medical Museum and Library has been introduced into both houses.

There is a House bill providing for the removal of the tax on alcoholic liquors that are to be used for medicinal purposes.

The President has sent a message recommending the representation of the United States in an international convention for the establishment of definite and uniform standards of examination for color-blindness and tests of visual acuteness.

THE QUADRENNIAL PRIZE OF THE WORSHIPFUL COMPANY OF LONDON GROCERS.—The above company has recently distributed circulars particularizing the conditions on which the prize of £1,000 is offered. The circular announces as the subject of competition the following: "To discover a method by which the vaccine contagium may be cultivated apart from the animal body, in some medium or media not otherwise zymotic: the method to be such that the contagium may, by means of it be multiplied to an indefinite extent in successive generations, and that the product after any number of such generations shall (so far as can within the time be tested) prove itself of identical potency with standard vaccine lymph." The prize is open to universal competition, British and Foreign.

Competitors for the prize must submit their respective treatises on or before December 31, 1886; and the award will be made as soon afterward as the circumstances of the competition shall permit, not later than the month of May, 1887.

It may prove that the problem is already solved by a physician of Finland, Dr. Quist, who has studied the subject very thoroughly from many points of view.

HONORS TO MEDICAL MEN.—The title of Hofrath has been conferred upon Dr. Stillwag v. Carion and Professor Spath, of Vienna. Professor Carl von Voit, of Munich, has been granted the Maximilian Order of Science and Art.

AT A MEMORIAL MEETING HELD IN HONOR OF THE LATE DR. J. MARION SIMS, at Charleston, S. C., the following interesting address was delivered by Dr. R. A. Kinloch:

Mr. President: Although I can add but little to what has already been said by my friends, who have so well and so fully spoken, I cannot refrain from offering my mite as a tribute to the memory of the genial, warm-hearted, charitable, talented, and great man whose death our profession now mourns.

To those who ever met Dr. Sims his personal magnetism appeared as his characteristic feature. This was the offspring of his softness of manner, his kind words for

others, his exhibition of that professional enthusiasm and elasticity of spirits that prevented him from knowing any such thing as failure in the work he had at heart. One felt almost a love for him at the first meeting. No man had fewer enemies. And although in the buffeting, which comes necessarily with professional emulation, there were encountered some bitter feelings and some unfortunate jealousies, these did not long mar the evenness of his life. He died, I believe, in charity and at peace with all men. He felt for others more than they felt for him, and more perhaps, at times, than he felt for himself. Upon the most trying occasion of his life, when he thought proper to resign his position at the Woman's Hospital, whether he was altogether right or altogether wrong, it is certain that the heart of our great profession extended to him a spontaneous and unlimited sympathy.

Of his kindness of heart and his thoughtfulness of others I may relate a striking incident associated with myself. Three winters ago, when he was in this city, and upon a bed of sickness, which at one time it was feared would be his bed of death, I sat by his side upon one of the occasions of my daily visits to him. He had been talking a little, though he was very weak, and it had pleased him to refer to some trifling attention on my part, which he called my "great kindness" to him. Suddenly, however, he grasped my hand and said: "My dear doctor, I am going to find fault with you in regard to one matter." I asked him what it was, and told him I would listen. He said, "Why did you write that review of my friend ———'s book?" alluding to an old review of my own in *The Medical Journal*, which I formerly assisted in editing. I replied, because I thought it proper, and asked if he regarded the criticism as unjust. "No," he replied, "not that, but he (the author) is a good fellow, has done some good things, and you ought not to have been so hard on him." I accepted the argument without admitting its legitimacy, and did not reply. The asperities of my own nature were softened as I looked upon my poor friend, ill nearly unto death, and yet thoughtful of the tender feelings of a distant professional brother.

But to speak of the professional ability, the high qualifications, and the striking success of our friend, and to trace these to their source, is also a useful professional lesson to us. There was no great intellectuality that insured success. The effeminate and gentle school-boy of ordinary capacity elicited simply the love of his fellow-students. The enthusiasm of his nature, however, when he came to manhood, was duly recognized, and in the young physician and surgeon there began to appear mechanical ingenuity and persevering effort, together with originality and boldness. Fortunately, for him he was long a "general practitioner," and he had enjoyed a field for investigation and practice with the negro race with which our Southern young men were often favored anterior to our civil war. His surgery in female diseases was thus first cultivated with the crudest specimens of the sex, it culminated with the refined women of the boasted aristocracy of Europe. Thirty or forty operations on one female of the first type to attain success; one failure with the other to insure loss of reputation! What a commentary upon professional experience!

When Dr. Sims finally made the effort to make gynecology a special department of practice, he succeeded mainly because of his training as a physician, or more especially as a surgeon. He presented, then, a striking contrast to many who in our day have narrowed down this work and who succeed only poorly and by reason of the credulity of trusting woman.

Dr. Sims had the lady's hand and the lion's heart, a tender sympathetic nature and an enthusiastic spirit which could not fail to carry him on to victory.

No one better than he appreciated the delicate nature of a refined woman; no one realized more than he that woman's gratitude surely followed the healing of her infirmities. We may try to estimate his loss by reviewing his qualities of head and heart. We may raise to him a monument, as elsewhere proposed, in that beautiful park of his adopted city, near the fields of his triumphs and the homes of the many who loved him well, but at last, for the the true valuation of his greatness, we must look to those of the gentle sex who felt the marvellous nature of his professional work. More precious than the brass and the stone of the loftiest column is the inscription that commemorates the virtues of the dead. No monument to the Father of American Gynecology will be complete unless the inscriptions come from the grateful heart of a refined and appreciative woman.

THE SIMS MEMORIAL FUND.

To the Medical Profession and Others throughout the World:

The great achievements of Dr. J. Marion Sims call for some more lasting testimonial than obituaries and eulogies. To him medical science is indebted for much brilliant and original work, especially in gynecological surgery. Those who have been benefited by his teachings and new operations, and such as have had the direct advantage of his personal skill are among the first to recognize and acknowledge this debt.

To him is due the honor of giving the first strong impulse to the study of gynecological surgery in America.

It is believed that the medical profession everywhere, the vast number of women who owe their relief from suffering directly to him, and those who realize the benefits he first made possible, will gladly unite thus to honor the man through whose original and inventive genius such blessings have been conferred upon humanity.

At the suggestion of many friends, therefore, the subjoined committee has been organized, and it is proposed that a suitable monument be erected to his memory in the city of New York.

To this end the active co-operation of the medical profession and the many other friends of Dr. Sims throughout the world is respectfully solicited. Contributions of one dollar and upward may be forwarded to the journal which has been constituted the treasury of this fund—THE MEDICAL RECORD, New York.

FORDYCE BARKER, M.D., *Chairman.*
GEORGE F. SHRADY, M.D., *Secretary.*

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S. C. BUSEY, M.D., Washington, D. C.
HARVEY L. BYRD, M.D., Baltimore, Md.
W. J. HOWARD, M.D., "

Other names may be added to this list from time to time.

Reports of Societies.

NEW YORK PATHOLOGICAL SOCIETY.

Anniversary Meeting, January 9, 1884.

GEORGE F. SHRADY, M.D., PRESIDENT, IN THE CHAIR.

TUBERCULOSIS OF THE TESTICLE.

DR. A. G. GERSTER presented three testicles, not so much on account of the rarity of the disease for which they were removed, as the fact that they illustrated the gradual development of tuberculosis of the testicle.

The first showed the most recent stage of the disease, and was removed from a laborer, thirty-eight years of age, who noticed an increase in the size of the left side of the scrotum, and first presented himself at the German Dispensary, where the diagnosis of hydrocele was made. The epididymis being rather swollen and hard, and the swelling extending up the spermatic cord for some distance, it was a question whether the hydrocele was simple or symptomatic of disease of the testicle. There was no evidence of pulmonary disease. The patient could not assign any cause for his difficulty. He said he had never had gonorrhœa, and there was no evidence of urethral stricture. Dr. Gerster proposed first to operate for the hydrocele, and accordingly performed Volkmann's radical operation about seven weeks ago, thinking that possibly the swelling of the testicle and epididymis would so diminish as to render further interference unnecessary. The wound healed kindly, the walls of the sac adhered to the testicle, and the patient was discharged from the hospital at the end of two weeks. Five weeks afterward he reported having had a severe chill and a very bad night. One week later the patient had lost his appetite and had commenced also to lose flesh. Dr. Gerster advised immediate removal of the testicle. The patient consented and the operation of castration was performed. The testicle showed a large central hard mass, denominated crude tubercle by the old writers. The epididymis was hard and enlarged. There was no evidence that the process of breaking-down had begun at any point. When the specimen was fresh the central nodule had a pale yellowish, waxy appearance.

The second specimen was removed from a patient thirty-one years of age, who had suffered from severe compression of the testicle. Acute traumatic epididymitis and orchitis followed, which did not run a normal course, but terminated at the end of six or eight weeks after the injury in a painless, hard, and smooth swelling of the organ, and the enlargement and induration extended up to the external abdominal ring. The patient had chills and night-sweats, and had emaciated considerably. Dr. Gerster removed the testicle, and it was interesting mainly on account of the condition of the tunica vaginalis, which presented an appearance resembling very much that seen upon the synovial membrane of diseased joints —namely, the velvety appearance with masses of newly formed granulation tissue at several places. In this specimen there were two central nodules of tubercle, and each had gone on to softening, so that small cheesy masses could be readily squeezed out.

The third specimen had a large central focus, consisting almost wholly of broken-down tissue with a sufficient reticulum to hold the semi-fluid mass together. It was removed from a patient, twenty-four years of age, and originated in an ordinary gonorrhœal orchitis, in which swelling and pain remained stationary. The epididymis also was involved. Eight or nine weeks after the first attack the patient began to suffer from chills and sweats, had lost flesh, and suffered a great deal of spontaneous pain. Dr. Gerster at once removed the organ. In this instance the tunica vaginalis had been spontaneously obliterated.

Pathologically these specimens were interesting because they illustrated the disease in three stages. They were interesting surgically because they demonstrated that an early diagnosis of the disease can be made. In former times it was the practice to allow such cases, to go on until hernia testis developed. Dr. Gerster however, believed that no special meaning could be correctly attached to the condition of hernia testis, because it is a symptom of several disorders occurring in the testicle.

DR. VAN GIESON asked if, at the time the emaciation occurred, preceded by chills and night-sweats, an examination was made and no evidence of tubercular disease detected in any part of the body.

DR. GERSTER said that an examination was made, that there were no symptoms of tubercular disease, and that none had developed since the operations, the patients being still under his observation. There was no family history of phthisis in either case. In the case in which the disease was most advanced, the patient a few days before the operation said he had a hacking cough and demanded that the organ be removed. He had already diagnosticated tubercular orchitis unaccompanied by tuberculosis of any other organ, and the nature of the affection and its liabilities had been explained to the patient. Dr. Gerster thought solitary tubercular testicle was not at all rare, and could be readily made out, especially when seen early, as in these cases, and when it is unilateral. He believed the miscalled "conservative treatment," consisting of scraping out the fungosities, replacing the protruding masses, etc., were all pernicious, and that the only rational treatment was immediate removal of such a focus from the body, as it may be a centre for the development of general tubercular disease.

DR. WENDT asked if the general symptoms disappeared soon after removal of the testicle.

DR. GERSTER said they disappeared at once.

DR. WENDT thought it a fair inference, therefore, that the local disease was the cause of the general symptoms.

THE PRESIDENT said it was an established fact in surgery that with the removal of such local lesions there was a subsidence of the general symptoms.

DR. FERGUSON asked if miliary tubercles had been found about the border of these masses, and also if the character of the white pulpy mass in the last specimen had been ascertained microscopically.

DR. GERSTER said none of the specimens had been examined microscopically and he would be pleased to have them referred to the Committee on Microscopy. They were so referred.

GENERAL TUBERCULOSIS—PARENCHYMATOUS NEPHRITIS.

DR. FRANK FERGUSON presented a series of specimens for which, together with the clinical history, he was indebted to Dr. Beverley Robinson, Attending Physician at St. Luke's Hospital.

A male, thirty-five years of age, a native of England, and a paper-hanger by occupation, was admitted into St. Luke's Hospital on December 19, 1883. His father died of carcinoma of the stomach. He denied syphilis; never had had malaria or rheumatism. He had had yellow fever, and was a moderate drinker.

Six months previous to his admission he was seized with general pains all over his body; dyspnœa on exertion, at the same time there was hemorrhage from some part of the respiratory tract, and his appetite became poor. His dyspnœa on exertion and poor appetite continued; he had a cough but not continuously. One month ago he had a chill; developed a continued cough with muco-purulent expectoration, but was able to do some work up to the time of his application for admission. On examination there was dulness over the upper lobe of left lung, posteriorly also over the lower lobe of the right lung. Harsh and bronchial breathing, prolonged expirations; crepitant, sub-crepitant, and sonorous râles were heard, generally distributed over the chest anteriorly and posteriorly. These signs were

more marked over the upper than over the lower lobes of the lungs. His heart action was very weak, and rapid. His temperature ranged from 99° to 103.5° F., higher in the afternoon, and his respiration was rapid, labored, and shallow. He was put on appropriate diet and stimulants were freely administered.

His urine, submitted to the ordinary tests and methods of examination, was found negative.

Five days after admission he became delirious, and the delirium continued with intermissions until his death on December 27, 1883.

The autopsy revealed adhesions old and recent over the right side, and the portion of lung covered by recently exuded lymph was the surface of the middle lobe and the upper portion of the lower lobe in the axillary line. The old adhesions were generally distributed over the surface of the lower and upper lobe. The lungs were everywhere pervaded by miliary tubercles, and in the upper lobes of both organs were numerous very small cheesy masses. The bronchial tubes were congested and contained mucus and pus; there were no cavities. The heart was normal in size, the valves were competent, the muscular tissue was anæmic. The spleen was large, soft, and pigmented. Neither with the naked eye nor with the aid of the microscope could any tubercles be found. The kidneys were normal in size; capsules were not adherent, their surfaces were smooth and congested; and there were a very large number of miliary tubercles in the cortices of both organs. Under the microscope fresh sections of these organs showed cloudy condition of the epithelium of the tubules of the cortex, and in places fatty degeneration. A few casts, hyaline and granular, were also observed in the straight tubules of one of the pyramids. The ureters and bladder were normal. The liver was large, contained a great deal of fat, and under the microscope numerous young miliary tubercles were seen. The tubercles in the liver do not, as a rule, show cheesy centres; only accumulations of young cells with one or more giant cells. In the kidney many of them were typical tubercles with cheesy centres. Tubercular bacilli were seen in great numbers in the tnbercles of the lung; the other organs had not been examined for them.

The case was interesting, first, because an accurate diagnosis had been made, and the post-mortem showed that the different râles noted in the clinical history of the case can occur intra-pulmonary. Second, tuberculosis so general in both lungs without any cavities. Third, the tubercles in the kidneys, but especially in the liver, are very young, and afford an opportunity to study them at an early date. Fourth, the lesion of parenchymatous nephritis is possible in tubercular kidneys. Unfortunately an examination of the head could not be obtained.

Dr. Wendt asked if there was any suspicion of the existence of tubercles in the kidneys during life. The reason he asked the question was because recent German writers had claimed that tubercle bacilli can be found in the urine.

Dr. Ferguson said there was no suspicion of this character further than that the attending physician entertained the conviction that it was a case of acute general tuberculosis. The urinary examination, not made for bacilli, however, was negative.

Dr. Heineman presented

SPECIMENS ILLUSTRATING EMPYEMA—ACUTE PERICARDITIS—ACUTE PULMONARY TUBERCULOSIS,

in a child eighteen months of age, which was admitted to the Mount Sinai Hospital, November 21, 1883. The child had not had measles nor scarlatina. It had whooping-cough nine months previous. Three months previous to admission it was ill with diphtheria for three weeks, and immediately afterward had pneumonia, from which it never fully recovered. It had more or less constant fever, cough, and severe dyspnœa. Appetite had remained good. Slept poorly *only* at times.

On admission the child was markedly emaciated and pale, had severe dyspnœa, rapid pulse, 180 and feeble; respiration, 80; temperature, 103.2° F. Physical examination gave flatness and absence of respiratory murmur over the whole of the left chest. Heart displaced downward and to right of epigastrium. The aspirator detected pus in left chest.

November 22d an incision was made in eighth interspace in first axillary line, five ounces of pus escaped, and a drainage-tube was inserted. Subsequently a counter opening was made anteriorly. The temperature fell to normal, the respirations to 60 and 64, the pulse became better, the child improved, and the discharge of pus grew smaller, though it was still decided at death. On November 28th the temperature rose temporarily to 102.2° F., and respiration to 80; were normal next day. The patient was otherwise comfortable, appetite was moderate. The child continued to emaciate, however, and with a normal temperature, pulse varying between 120 and 160, respirations being a little over 60, only rising occasionally to 80, died quietly without other symptoms, December 14, 1883.

The autopsy revealed the following condition: Brain not examined. Lungs: Right lung—Upper lobe completely consolidated and in stage of red hepatization and contained recent small cheesy nodules; lower lobe œdematous. Scattered through lung were also grayish translucent miliary nodules. Left lung firmly compressed against spinal column and completely unaërated, covered with a rather thick layer of fibrin and pus. Left pleural cavity lined throughout with considerable layer of fibrin and pus and contained about an ounce of healthy pus. Two artificial openings existed into the cavity which appeared healthy; ribs were unaffected. Heart: Pericardial sac enormously distended with purulent serum, visceral and parietal pericardium coated by a thick layer of fibrin and pus. The other viscera were normal.

Dr. Gibney asked Dr. Heineman if the diagnosis of pericarditis was made before death.

Dr. Heineman answered that it was not.

Dr. Gibney thought it was not easy to diagnosticate pericarditis in a patient suffering from empyema. He cited a case in which he made an autopsy last spring, one that had been under observation for some time, and in which several prominent medical men had been interested. The child had marked empyema, which was opened by incision, and the patient died from exhaustion following a very small hemorrhage. On opening the chest the pericardial sac was found completely filled with pus, the presence of which had passed unrecognized during life.

Dr. Heineman also presented specimens of

TUBERCULAR ULCERATION OF THE PROSTATE, WITH TUBERCULAR KIDNEY, AND HYDRONEPHROSIS.

Jacob R——, aged twenty-nine, native of Germany, married, and a tailor, was admitted to Mount Sinai Hospital, December 23, 1883. Family history negative. Never had gonorrhœa nor chancre. Never had rheumatism. Was perfectly well until four years ago, since then he had at times pain across the bladder, frequent and painful micturition, incontinence at times, retention at others, and frequently suffered from vesical tenesmus. Quantity of urine scanty, always cloudy in appearance, but never bloody. He has had backache, but no other symptoms of renal disease. His appetite has been poor, and the bowels constipated.

For four years, previous to six years ago, he had the habit of masturbating; for two years past was married; was moderate in intercourse, and had seminal emissions without erection at times. He had irregular chilly feelings almost daily for the past nine months.

Upon admission he was found to be markedly anæmic, emaciated, and appeared utterly without animation. His bowels were constipated, and his appetite poor; had no cough, and complained of his urinary trouble as above described.

Physical examination of the lungs revealed râles over both sides, and here and there slight dulness, and respiration slightly rude. His pulse varied during his stay in the hospital from 58 to 80; his respirations from 22 to 36; his temperature 97° to 99.2° F. His urine varied in specific gravity from 1.004 to 1.014, was frequently acid, sometimes alkaline, and contained considerable pus and albumen; the quantity varied, being respectively seventeen, twenty-four, twenty-two, ten, and six ounces per diem.

He complained but little, had a constant odor of urea of the breath, seemed always in a condition bordering on coma, and on fifth day of admission became comatose, and died December 29, 1883, the sixth day after admission.

At the autopsy both lungs contained small recent cheesy nodules and were thickly studded with translucent grayish miliary nodules. The heart was normal. The liver was cirrhotic and about normal size. The spleen was increased in size and waxy. The stomach and intestines showed the lesions of chronic catarrhal inflammation. The right kidney was the seat of hydronephrosis, somewhat smaller than normal, the proper kidney tissue was destroyed and was converted into a mass of sacs with thick connective-tissue walls. The pelvis and these sacs were distended and filled with a thick pasty mass of inspissated pus and cheesy matter. The ureter was slightly thickened. The left kidney was enormously increased in size, measuring eight inches long and four and a half wide. On section it was found to be uniformly hypertrophied throughout. The mucous membrane of the pelvis was reddened and inflamed, and the cavity contained pus and cheesy material. The kidney itself contained several large cheesy cavities and was studded with small and large foci of pus. The left ureter was markedly dilated throughout, and its walls hypertrophied, its size corresponding with that of the hypertrophied kidney. The prostate gland was the seat of tubercular ulceration and was broken down. The coats of the bladder were thickened and the mucous membrane coated with thick layers of fibrous pus and cheesy matter. Microscropic examination revealed presence of bacilli in the ulcerating mucous membrane.

DR. FERGUSON asked if the kidneys had been examined microscopically, and if they showed evidence of chronic diffuse nephritis.

DR. HEINEMAN said they had been, and that the lesion mentioned was present.

DR. FERGUSON remarked that the reason why he asked the question was because one of the members, at a recent meeting, stated that he had examined three hundred tuberculous kidneys, and that in not one of them was chronic diffuse nephritis present.

HYPERTROPHY OF THE HEART—DIAPHONOUS INTERVENTRICULAR SEPTUM.

DR. ROBINSON presented a heart removed from the body of a man who was admitted December 20, 1883, to St. Luke's Hospital, suffering from pulmonary tuberculosis. Nothing abnormal concerning the heart was discovered before death.

At the autopsy the heart was found enlarged, fatty, but the valves were competent. The muscular tissue had undergone fatty degeneration. The inter-ventricular septum at its upper portion was composed of fibrous tissue and was diaphonous. There were cavities in the lungs, and also miliary tubercles. There were tubercles in the kidneys. There was one ulcer in the jejunum. The liver was fatty and anæmic.

URETHRAL STRICTURE—CYSTITIS—PYELITIS—PNEUMONIA—ENDOCARDITIS.

Dr. Beverley Robinson also presented specimens accompanied by notes of the history furnished by Dr. W. H. Sherman, Acting Senior Assistant Physician at St. Luke's Hospital. John F. R——, twenty-four years of age, a druggist by occupation, was admitted December 26, 1883. No family history of hereditary disease. In 1879 the patient had an attack of acute parenchymatous nephritis, he states, when there was albumen in his urine, but no casts. Since then he had occasionally found albumen in his urine. Present illness began on December 12th. He was attacked with dizziness and vomiting. Had vomiting and daily chills up to the time of admission. Had no fever on the day of admission or before (patient had been accustomed to take his own temperature). Bowels were regular. On admission he complained of distress over the stomach and constant vomiting (the matter vomited was a blackish fluid). He had deep-seated tenderness over the region of the left kidney behind, and, on deep pressure, over the left side of the abdomen. He had no muscular contractures. His tongue was dry and coated, and there were sordes on the teeth. His pulse was 102 and feeble. His temperature was 98.3° F. in the mouth. The patient had a stricture of the urethra, situated about two inches from the meatus, the result of a gonorrhœa acquired seven years before. His heart was somewhat enlarged and there was a rough murmur covering the first normal sound, heard at the base at the inner end of the second intercostal space, on the right side, and also heard over a considerable area between the nipple and the sternum, and conveyed into the great vessels.

December 27th.—Urine was drawn with a catheter, and ten fluidounces obtained during the twenty-four hours. Patient had a slight sweat. Given sulphate of quinine (gr. v. every eight hours) and mistura potassii citratis (℥ ij. every three hours). Temperature, morning, 98.2°; evening, 97.2°.

December 28th.—The urine had a specific gravity of 1.010, an acid reaction, ten per cent. of albumen, some pus, and a few red blood-globules. The vomiting continued. The pulse became very weak, irregular, and dicrotic. A catheter was introduced, but no urine was obtained. The patient was somewhat delirious during the early part of the evening. The pupils became moderately contracted, the respiration slow and labored; the temperature fell in the axilla to 94°, and he died December 28th at 9.05 P.M. There were neither convulsions, muscular twitchings, uriniferous odor, nor œdema.

At the autopsy the body was found fairly nourished, rigor mortis well marked; no œdema. Lungs: Right—upper and lower lobes were intensely œdematous and congested; the middle lobe was hepatized, being in a condition midway between gray and red hepatization; bronchial tubes contained frothy mucus and some pus; there were old adhesions on the left side posteriorly. The left lung was congested and œdematous. Heart normal (attending physician found beading on aortic valves). Spleen normal. Kidneys small; capsules not adherent; surfaces very granular; cortices thin; markings indistinct. Left kidney is anæmic; right kidney is markedly congested; pelves of both are intensely congested and covered with pus. No evidence of amyloid degeneration. Liver small and deeply pigmented. Intestines: The solitary follicles and Peyer's patches of the small intestines are prominent. Bladder: Far advanced cystitis; contains some urine and pus. Urethra: A stricture existed about three inches from the meatus, which admitted sound No. 8, English.

The case just read is of interest for several reasons:

First.—Although after death a well-marked consolidation of the middle lobe of the right lung was found, during life there was neither cough nor sputa, nor did the stethoscopic signs reveal to him, by aught else save deficient respiratory murmur, the possible condition of the right lung.

Second.—The patient had during life a *rough* murmur synchronous with the first sound of the heart, and heard over an area where we are accustomed to locate murmurs pointing to aortic stenosis. Although prior to death he was confident that the autopsy would show ad-

vanced aortic lesion, in fact there is only a slight beading of the aortic cusps to show as the organic cause of the murmur heard during life.

Third.—Although it would appear from the man's history that the stricture of the urethra was an efficient cause, doubtless, in producing his affection of the kidneys, yet the kidneys themselves are not such as are usually seen following upon this condition. Instead of being enlarged with a much distended pelvis and the cortex and pyramidal portion infiltrated with cheesy nodules, they are small and contracted and present the condition of well-marked interstitial nephritis. The question which presents itself is whether the kidney degeneration is not really independent of the stricture of the urethra, except perhaps the late inflammatory condition of the pelvis. In favor of this belief we note the hypertrophy of the left ventricle and the secondary pneumonia. Opposed to it we have the somewhat chronic inflammatory condition of the bladder, which is so frequent a sequela of old and neglected stricture of the urethra.

DR. ROBINSON asked if the condition of the kidneys was common without urethral difficulty.

DR. PEABODY remarked that such kidneys are far more common without than with urethral trouble.

PERNICIOUS INTERMITTENT FEVER—PIGMENTED BRAIN, LIVER, AND SPLEEN.

DR. G. L. PEABODY presented the liver, spleen, and brain removed from the body of a man who died of pernicious intermittent fever. The patient was thirty-one years of age, a German, who had been in Jamaica. How long he had been suffering from the symptoms presented Dr. Peabody was unable to say. He complained of severe headache, was in a condition of lassitude, but was able to give short answers to questions, and within twenty-four hours passed into coma and died with a temperature of 108° F. There were no renal complications. Dr. Peabody had examined sections of the brain and liver microscopically and found blood pigment present in both in large quantity. In the brain it was where he had always found it, chiefly in the gray matter and entirely confined within the lumen of the blood-vessels.

The Society then went into executive session.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, January 17, 1884.

FORDYCE BARKER, M.D., LLD., PRESIDENT, IN THE CHAIR.

DR. R. F. WEIR gave

A DEMONSTRATION OF ANTISEPTIC DRESSINGS AS THEY ARE USED AT THE NEW YORK HOSPITAL.

The principles embodied in the dressings remain the same as when set forth by Sir Joseph Lister, and in the treatment of wounds the aim is to place the parts in such a position as to secure the best drainage and keep them at rest (avoiding frequent renewals of the dressing). To accomplish the last, substances which will prevent decomposition must be used, for this is either caused by micro-organisms or inevitably associated with the process. Whatever theories may be broached concerning the entrance of germs into the body, it is the aim of antiseptic surgery to neutralize conditions which favor the development of germs. Until recently this has been done by the use of carbolic acid and iodoform.

A grave objection to carbolized gauze or jute, etc., is the fact that, however prepared, the carbolic acid evaporates, and leaves the material, if not *very* fresh, an unreliable antiseptic dressing. One of the great objections brought against carbolic acid and also iodoform is the fact that both are liable to produce toxic effects. We know a little more exactly concerning iodoform than carbolic acid in this respect, and Neuber, of Keil, has demonstrated quite satisfactorily that of this drug forty-five grains can be used safely about a wound. About two years ago Dr. Weir began to use the bichloride of mercury, which has displaced, to a very considerable extent at least, both of the above antiseptic drugs. It is kept in contact with wounds by means of gauze, cheese-cloth, or mull, impregnated with a solution, or by means of peat, first used at Kiel, and also jute, which fell into disuse because carbolic acid evaporated from it so rapidly. The bichloride solution used varies in strength from 1 to 1,000 parts of water to 1 to 5,000. One great advantage which it has over carbolic acid is durability, and a week ago Dr. Weir would have said that it was a very stable chemical. But investigation proved that it is a rather unstable compound, that calomel forms at the expense of the bichloride, both in the solution and in the dressings (gauze, jute, etc.). To counteract this Professor Gibbs, of Harvard, had suggested the addition to the solution of a small quantity of common salt, say 5 parts to the 1,000.

To prepare the dressing, get the sizing out of gauze or cheese-cloth by immersing it in a weak solution of soda, or muriatic acid, or both, then washing it with water and drying it. Then immerse it in the following solution:

℞.	Bichloride of mercury.....	20 parts.
	Water	4,480 "
	Glycerine	500 "

which is a one-fourth per cent. solution, and allow it to dry. Cotton batting is prepared in a similiar way. Jute and moss are prepared by putting them into a solution of bichloride, 1 part to 1,000 of water and 50 parts of glycerine, and allowing them to remain all night, when they are wrung out and allowed to dry (the glycerine prevents them from doing so entirely). Dr. Weir then spoke of wood pulp, peat, bleached and pressed jute, moss, cotton, etc., and exhibited specimens of each, prepared for surgical dressings. These materials can be bought of M. Lienau, 2 Jones Lane, New York.

At the time of the operation a solution of bichloride, 1 to 1,000, sometimes 1 to 2,000 of water, is allowed to trickle nearly continuously over the incision, the parts having previously been thoroughly washed with soap and water and afterward with a solution of turpentine in alcohol, of the strength of two drachms to the pint. The parts should be washed the day before, as well as on the morning of the operation. The rubber bandage is applied (in amputations) and he uses the spray only in abdominal, thoracic, and joint operations. Hemorrhage is arrested temporarily by means of hæmostatic forceps, of which Dr. Weir exhibited a large number, together with knives, having baked-rubber handles.

The vessels are ligated with catgut, prepared by placing the material in bichloride solution, 1 part to 100 of water, for ten minutes, and then in a watery solution, 1 to 1,000, for ten to fifteen hours, and afterward wound on bobbins and kept in absolute alcohol. Occasionally Kocher's ligatures are used, prepared by placing catgut in oil of juniper for twenty-four hours, and then into absolute alcohol. Dr. Weir prefers, however, to use the ligatures from the oil of juniper alone, without having them kept in the alcohol. The wound is closed with the continuous suture of catgut, leaving an opening at each end for the drainage-tube, that of black rubber being preferred. Dr. Weir spoke also of decalcified bone drainage-tubes, one disadvantage of which was that they were absorbed too quickly. This, however, can be obviated by keeping them in absolute alcohol before use. Cleanse the wound by injecting the drainage-tube until the solution comes out clear, then place a piece of sublimated gauze over the centre of the wound, over that other pieces, and over the whole a compress of several thicknesses secured in position by means of a bandage. The expectation is to have an amputation wound heal under one or two dressings.

The possibility of toxic absorption of the bichloride

solution has led some to use a milder antiseptic during the operations, such as that suggested by Thiersch, of Leipsic, and composed of

℞. Boric acid	6 parts.
Salicylic acid	1 part.
Water	500 parts.

This is allowed to flow over the wound during the operation, the final washing being made with the bichloride solution. Cleanliness on the part of the operator and the assistants, as well as the patient, and everything about him, is presupposed, and the author of the paper referred especially to the operating-rooms of Tait and Keith, and the scrupulous care exercised by these gentlemen concerning cleanliness. Special reference was made to the way in which sponges can be made aseptic, and the care which they should receive after each operation. The sponges in the New York Hospital are prepared by first beating out the sand, then washing them in warm (not hot) water, and placing them in a solution of permanganate of potash, 1 to 1,000 of water, for twenty-four hours. Then wash out the permanganate with warm water, and bleach by immersing them in a solution composed of one part of sulphite of sodium to one hundred parts of water, to which has been added a one-fifth part of a watery solution of hydrochloric or oxalic acid of the strength of 8 parts to 100. Only a few minutes are required to whiten them, and if left longer they become brittle. The sponges are then put into a carbolic solution of 1 to 20, or in a bichloride solution of 1 to 1,000, where they remain until used. Sponges prepared in this way cost about a cent and a half each, and can therefore, without much expense, be thrown away after each operation. For simple lacerated wounds Dr. Weir preferred iodoform.

Finally, absolute rest, so far as possible, is enjoined, and this is secured (in cases of amputation, etc.) by means of the tin splint enamelled.

To use a common expression, Does all this detail pay? He regarded it like discussing a self-evident proposition, but to show the value of antiseptic treatment a few figures were presented. Prior to the use of antiseptics the mortality from compound fractures of the thigh and leg, arm and forearm, was over thirty-three per cent. in Roosevelt and St. Luke's Hospitals; in the old New York, sixty per cent.; in the Boston City Hospital, forty-one per cent.

Under the open treatment the mortality was reduced to twenty-six per cent. Under antiseptic treatment he had had one hundred and eighteen major compound fractures, with eight deaths, a mortality of six per cent. Lately he had had twelve cases of compound fracture treated with the bichloride dressings, without a single death. Similar testimony is to be had concerning amputation, and Dr. Weir quoted from Billroth's and Volkmann's statistics, and also gave his own, all of which showed a very great reduction in the rate of mortality when compared with results obtained by old methods. In conclusion, the author of the paper repeated the words which he had used on a former occasion: "The saving of life which is thus indicated, occurring as it now does, or ought to do, over the whole world, should entitle the name of Joseph Lister to outrank in medicine all of his century, not excepting the discoverer of anæsthesia."

Dr. A. C. Post was invited to open the discussion, and said he was convinced of the value of what is known as antiseptic surgery, although he was not fully prepared to acknowledge the necessity for all the details of the treatment which had been described by the author of the paper. There was no doubt that a vast improvement in the treatment of wounds had been obtained by Lister's method and its accessories; that is, great care concerning cleanliness, thorough drainage, and the use of antiseptic applications to guard against the morbid processes supposed to be associated with micro-organisms. It had appeared to him, however, that in ordinary wounds, not involving very important parts, it was hardly necessary to go through the entire formality of these complicated dressings. As to the necessity of perfect cleanliness and drainage there could be no question. He was thoroughly satisfied that the results of antiseptic treatment, as carried out in the New York and Roosevelt Hospitals by Dr. Sands and by Dr. Weir, had been an improvement upon those obtained previous to the use of such precautions.

He mentioned one antiseptic to which reference had not been made, and which he had used in the treatment of minor wounds, such as small open wounds, and that was the subnitrate of bismuth, sprinkling the surface with the powder from a pepper-box, and then applying an ordinary dressing. All the wounds, so far, which he had treated in this manner had progressed remarkably well.

Dr. J. D. Bryant, since the spring of 1868, when an interne in Bellevue Hospital, had watched with great interest the development of the antiseptic method of treatment. Between September, 1869, and the spring of 1871 he treated twelve cases of compound fracture. He adopted the plan of treatment then best known, and simply injected into the wound a solution of carbolic acid, 1 to 120, thoroughly washed out all the nooks and crevices, washed the entire limb, and surrounded the whole with oakum saturated in a strong solution, 1 to 80. The limbs were secured in an immovable apparatus of plaster-of-Paris splint. Of the twelve cases all but two recovered, and of these two, one was a particularly bad one, involving the ankle-joint with rupture of the posterior tibial artery and sloughing of the soft parts. Since the spring of 1871, when he left the hospital, he had used the ordinary antiseptic dressing as recommended by Mr. Lister. During the last few months of his hospital practice he had employed the bichloride solution, 1 to 2,000, in conjunction with iodoform, antiseptic gauze, peat, etc., and with entirely satisfactory results, except in one or two instances, where the cause of the suppuration or rise of temperature could be traced to lack of attention.

To Mr. Lister undoubtedly belonged the credit of having perfected and introduced the antiseptic treatment to the profession, but the great fight which he had was with reference to eliminating external influences, as many, if not all, the other measures had preceded him. Dr. Bryant had full faith in the efficacy of the antiseptic treatment, and referred to two very severe cases in which its benefit was especially manifested. One was a case of very large scrotal hæmatocele, and the other was a tumor of the parotid gland. He thought one of the things to be studied by hospital surgeons was how to simplify antiseptic precautions so that they might be brought within the reach of the general practitioner as to give the best possible results. At the present time the bichloride solution, with iodoform gauze, are probably the best that can be used. He employed catgut ligatures soaked in oil of juniper, and used short drainage-tubes rather than long ones, thus avoiding the possibility of the long drainage-tube acting as a foreign body in the wound. Dr. Bryant also reported a case which illustrated the great ability wounds sometimes exhibit to recover rapidly when subjected to ligature by catgut. The case was one of circoid aneurism, in which a very large number of ligatures were employed.

Dr. L. A. Stimson said there was more in antiseptic surgery than the mere antiseptic. He regarded it as essential to a fruitful discussion of the subject that a discrimination be made between the different parts of the problem. It should be recognized that there are at least two distinct parts: the first deals with the cause of the complications, which the dressings are designed to prevent; the second with the properties, the extent of the various dressings, and the value of each in preventing those complications. For a man who believes that suppuration or fever occurring in the course of the repair of a surgical wound is always the result of the introduction of germs from without the question is a simple one. It is his aim to clean the wound with an efficient

germicide, and to cover it with a dressing which will either filter out or destroy all other germs which may be brought to it. But for the man who thinks there may be some other cause; that these complications may arise through the perverted action of the elements of the body itself; that they may be the result of local disturbances of nutrition, of tension, mobility, change of temperature, lowered or perverted vitality—for this man the problem is a much more complex one. He uses antiseptics to purify his wound, his own hands and those of his assistants, to purify his patient and his instruments, but after he has done that, after he has thus protected his patient from the dangers arising from one source, he has to employ other measures to protect him from those arising from other sources. He must have drainage, rest, and pressure, as well as cleanliness, and does not feel safe even then. There is still the *unknown* in the individual himself, that hidden fatal cause, whose action he can neither foresee nor avert, and it comes not only to him but also to the believer in antiseptics, and frequently enough to make that absolute confidence in their power to avert danger which men have recently expressed seem inexplicable, and action based solely upon that confidence rash almost to the verge of criminality. There is a great deal more in antiseptic dressings than the antiseptic itself, and each has many different properties, and the same properties are possessed by several in varying degrees. The test of experience alone *along a single line* is not sufficient to decide the question between their respective merits. Brilliant results and disastrous failures have followed each and every one, and no single man's experience has been found sufficient to cover all possible variations of disease and dressings.

Now look at antiseptics as germicides only, leaving out all topical effects. It has been demonstrated, beyond question, that the introduction into the healthy body of certain germs will cause septicæmia; and, therefore, the use of antiseptics to prevent such introduction is proper. But it has not been proved that the same disease cannot arise independently of such germs. Cases of apparently independent origin, cases of septicæmia without external wound, are known to all of us. For example, he had a hospital case, that of a man who had fallen from the top of a house, injuring his ankle, but the skin was not broken, not even bruised. There was a small wound in the small of the back, and some damage apparently was done to the nerve-trunks, as shown by partial loss of sensation. Within forty-eight hours after admission the foot and leg became swollen and crepitant; the limb was amputated, and found to be saturated with brown, offensive serum, gangrenous emphysema, and septicæmia. There was no external wound, except that in the small of the back. The case could be explained on the germ theory in only one of three ways: The germs must have entered either through the skin, or through the small wound in the back, or through the lungs or alimentary canal. If through the wound in the back, then it would be necessary to dress every scratch, every pimple upon a patient's body. If they entered through the unbroken skin, a patient must be enveloped from head to foot in the dressing. If through the respiratory or alimentary tract, then no patient is safe. It was much easier for him to believe in the spontaneous production of the septicæmia, that it was due to some local change, perversion of nutrition, or defective innervation. It may seem unfair to compare such a case with wounds made by the surgeon's knife, but it seemed to him that surgeons did themselves injustice when they attributed unfavorable results, occurring under an antiseptic dressing, to lack of care, to neglect of some precaution. Such unfortunate cases happen to all, and he thought it often a more plausible explanation that the cause was in the patient, and not in a defect of the dressing.

Dr. Weir, in his interesting account of the dressings, had already pointed out one or two defects in the argument. The argument is that germs cause septicæmia, antiseptics destroy germs, the use of the antiseptic method has been followed by good results, and, therefore, the good results are due to the antiseptics and complications are due to the entrance of germs. For many years we used carbolic dressings and got good results; and then we heard that carbolic acid evaporates and that the dressings we had been using were not antiseptic. Bichloride of mercury was substituted, and again with good results. Now Dr. Weir tells us that the bichloride is untrustworthy, for it changes into calomel. All this time, too, we have been putting catgut ligatures down in the bottom of the wound, and now we know that the carbolized oil in which the catgut was prepared is not antiseptic, that the catgut was sometimes actually rotten, that it contained the very germs we wished to keep out.

Again, putrefaction has been regarded as one of the sources of the trouble. Now, take one of the dressings the use of which has been attended with good results, namely, peat. It was thought to be in itself antiseptic, and was used without previous purification, and it gave excellent results. At the present time it is usually moistened with a bichloride solution. To test its antiseptic properties Dr. Stimson had made a series of experiments; he had saturated peat with a sterilized putrescible liquid, and within forty-eight hours the liquid was swarming with bacteria, while the liquid of the "controlling" experiments was still clear. The peat itself *is full of germs.* No one questions its value as a dressing, but its value must be due to something else than its supposed antiseptic quality.

There are many things in antiseptic dressings besides the antiseptic, and he believed that the good results which have unquestionably followed the use of these dressings were due to these other properties quite as much as to the prevention of putrefaction.

If the exclusion of germs is all that is needed, why should drainage be used, why should not every aseptic wound be transformed at once into a subcutaneous one by primary union of the skin? He mentioned a case to show how such an attempt fails. A simple fracture does not have drainage, and yet does not suppurate; but an open wound made by the surgeon and involving the bone will suppurate nine times out of ten, despite all antiseptic precautions.

While, therefore, he believed that the antiseptic method of treatment was exceedingly valuable, he also believed that the use of the antiseptic as a preventive of septicæmia, suppuration, or fever following operative wounds or injuries is a restricted and limited one. He believed that by its use we only protect our patients from the action of *specific poisonous germs,* and that to it we must add other elements in the dressing. Free drainage must be established and perfect rest must be secured, together with equable compression and temperature. With the application of these principles, to the details of which it was not necessary to refer, he believed the patient was placed under the most favorable conditions for a rapid recovery to ensue. He believed, therefore, in antiseptics to purify the patient, the surgeon, the assistants, and the instruments, and then drainage, compression, and rest must be secured.

Dr. A. G. Gerster spoke of some of the points of advantage which the corrosive sublimate solution possessed over carbolic acid. It was well known that carbolic acid has a disagreeable effect upon the tissues, produces a bloody oozing which permeates the dressings very quickly, and necessitates a change of them within from ten to twenty-four hours, sometimes even earlier, and thereby one of the principles of antiseptic treatment, that is, long-continued rest, is frustrated. By the use of the bichloride solution this disagreeable feature is avoided, as the bichloride leaves a very dry wound, does not dissolve the small clots which plug the vessels that have been cut by the surgeon's knife, and favors the leaving of the first dressing for a long time before it becomes necessary to change it. During the last six months he

had used the bichloride solution almost exclusively in his service at the Mount Sinai Hospital, also at the German Hospital, and the essentials of the treatment were the same as those which had been related by Dr. Weir. It had been his desire to so simplify antiseptic treatment that antiseptic surgery could be adopted by the general practitioner. To this end he had been employing a material to which reference had not been made, and with excellent results—namely, common sawdust. After having the sawdust soaked for twenty-four hours in a watery solution of bichloride, 1 to 500, and then dried, it is put away in a tight box. Before each operation a suitable sized bag is filled with the sawdust, and under this dressing all his surgical cases had done as well as under the most æsthetic antiseptic dressing which could be imagined. He regarded iodoform as a very valuable dressing, and it could be used by sprinkling it over the ordinary gauze, or the sublimate gauze, where it would quickly form with the blood a pasty substance, a protective more effectually excluding all external influences than any which he had seen. He also tried Spanish moss, but had not found it a very useful material so far as its absorbent qualities are concerned. It is exceedingly soft and agreeable as a dressing, but it does not absorb readily. The ordinary cotton batting he had found to be a very valuable and excellent antiseptic dressing. He then referred to a case of compound fracture of the elbow-joint, occurring in an old man, with poor circulation and affected lungs. The ordinary cotton batting soaked in a bichloride solution was applied extempore, and secured in position by an ordinary muslin bandage manufactured on the spot from old sheets. The progress of the case was entirely satisfactory, the fracture progressed as though it had been a subcutaneous one; healing of the external wound occurred by first intention, and the case did very well. One reason why it did so, he thought, was because no serious injury was done to any of the more important blood-vessels, whereas it was quite possible in Dr. Stimson's case, referred to, such injury took place, and perhaps would explain the unfavorable result that followed.

He did not wish to enter upon the theory of antiseptics, but thought that all hospital surgeons admitted there had been a vast improvement in the behavior of wounds since they had been in use, in the strict sense of the word. Of course suppuration and fever had occurred in many cases after they had been used in the most careful and thorough manner, apparently so at least, but he thought the vigilant surgeon would find in nine out of ten cases the cause of his failure, and he believed it important to search for such causes, as finding them would help to avoid subsequent failures. He then referred to a case in which he incised the shoulder-joint for the purpose of removing a portion of the capsule to prevent habitual dislocation. Elevation of temperature was present on the following day, and, *without delay*, he opened the wound entirely, found three or four catgut ligatures surrounded by pus, the remainder of them not being changed, and he had no doubt whatever that the catgut carried the infection into the wound. He believed that it is not germs alone which give rise to these unfavorable symptoms; the expression is too mild, since generally the complications are due to veritable lumps of dirt. He regarded continuous vigilance as one of the very essential conditions to the success of antiseptic surgery, and believed that in most of the cases which had proved failures, and it had been said that the results were due to the fact that the spray was not used, or there was some other deficiency in the local applications, there would be found, on closer investigation, gross neglect with reference to cleanliness.

Dr. Weir, in closing the discussion, said he must agree with Dr. Gerster and also with Dr. Stimson, although both apparently took opposite sides of the question. Very many cases are treated according to the principles of antiseptic surgery which terminate unfavorably, but in the majority the reasons for their unfavorable progress or fatal termination could be found. At the same time he must say also that he had seen cases where he was unable to condemn or criticise the dressings or find want of care in their application, and yet evidence of septicæmia developed. He did not think that as yet we have absolute control of all the elements in the cases, but so far the principles had led toward the perfecting of the method of treatment. Certainly we must not be rash, and he wished to put himself in accord with those who raised a voice of warning against undertaking certain operations which are hazardous to life and from which very little is to be gained.

With regard to bismuth, mentioned by Dr. Post, he thought that it did not prevent the occurrence of erysipelas, as most of the other antiseptic dressings employed seemed to do.

The Academy then adjourned.

Correspondence.

SECOND-CLASS SHIP-SURGEONS.

To the Editor of The Medical Record.

Sir: Not two hours before the last issue of The Medical Record I had mailed a contribution to the London *Times*, which will appear on or about the 29th instant, and which seems so pertinent to your excellent article on "Second-Class Ship-Surgeons," that I take the liberty of handing you an unaltered copy:

"The *Times* recently published a letter by Dr. Domett-Stone, in which he does me the honor of quoting at length from my articles upon the present defective medical service on transatlantic steamers. I desire to add a few lines upon the channel through which this often disastrous condition of affairs may be amended. Dr. Stone advises the ship-surgeons to enroll themselves into a mercantile marine medical service with the view of laying their grievances before Parliament.

"Let me predict that the only result of such a movement would be the immediate dismissal of its leaders, and a probable increment of disability among those who survived the displeasure of their employers. Ship-surgeons are aggrieved; they are allowed no position or authority; they are assigned the worst cabins; they are remunerated on a par with cooks, stewards, and fourth engineers; in fact, their complaints are many and various. But who cares about ship-surgeons! People now-a-days are tired of class grievances, and ready to accept the general principle that necessity can regulate demand, results quality, and both a normal standard of price; and that a class of workers driven to seek legislative protection are effete in the field of public usefulness.

"Let ship-surgeons who are dissatisfied with their position retire from it and enter upon any of the other walks of the profession which are open to them, and in which honest energy and ability are certain of ultimate recognition. Those who are content in a life of semi-inebriate dormancy may congratulate themselves upon the unique facilities for such an existence which the present system affords. But of this much all may rest assured, that even should the moiety of gentlemen and competent practitioners now in the sea services unite in a strike against existing conditions, such a course would not seriously inconvenience their employers.

"The average ship-owner desires a person whose qualification complies with the minimum requirement of the law, whose faculties or philosophy are of the character which accepts what is as right, who can be judiciously silent when it might be inconvenient to speak, judiciously blind when not intended to see, but who will ever be ready to act as a buffer between negligence and public indignation when the health interests of passengers come into opposition with the money interests of his employer. And unfortunately there are still in the profession

of medicine enough loafers and general "bad eggs" to fill the vacant posts, and render more homogeneous and quite as satisfactory to its employers a class in which the best and the worst are now exactly upon the same footing. Ship-surgeons must recognize that they are a drug upon an overstocked market, in which pertains the abnormal condition that the quality of the article is little object to the purchaser; and hence to grumble and formulate grievances must ever be a futile task.

"There is, however, another aspect to this question. It has been demonstrated that among the thousands upon thousands who annually cross the Atlantic there is a serious depression of health and a highly excessive mortality, referable to the unreliable medical service and the absence of an efficient sanitary administration on shipboard. Statistics collected from reliable sources, and unmistakably pointing to this conclusion, have been published by me, and still remain unchallenged, although proof has been offered for every statement which has been advanced. The British Medical Association has endorsed my views, and memorialized and interviewed the President of the Board of Trade, but as yet without result.

"Mr. Chamberlain, apparently absorbed in the matter of load-lines, and free boards, and questionably seaworthy craft, seems to regard it as a legitimate enterprise, and one in which Government has no concern, that two thousand persons should be dispatched across this ocean in a steamer whose construction defies every law of sanitary science, and whose medical service is disgracefully inefficient.

"This, however, must soon come to an end, either with or without the intervention of the Board of Trade. If the profit interests of the transatlantic carrying trade are almost entirely European, the health interests of passengers are at least as much American. Of the saloon passengers by Atlantic steamers probably three-fourths are American, the steerage are with few exceptions already citizens of this country or intend to become such. The conduct of immigration has long since emerged from the legitimate sphere of private enterprise, and become an important national concern to this country. The United States has a distinct right to supervise the transit of her citizens; a right to follow the example of our British Colonial Government, who appoint an independent medical superintendent to every vessel carrying emigrants to their shores; and I do not hesitate to predict that unless reforms are soon instituted by the home authorities, Englishmen may prepare themselves, and that on short notice, to swallow an unpalatable pile of American interference in this important branch of British Trade."

I am, sir, your obedient servant,

J. A. IRWIN, M.A., M.D.,

Late Hon. Physician to the Manchester Southern Hospital for Women and Children.

363 FIFTH AVENUE, January 19, 1884.

Army and Navy News.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from January 12, 1884, to January 19, 1884.

BREWSTER, W. B., First Lieutenant and Assistant Surgeon. Resignation accepted by the President, to take effect February 7, 1884. S. O. 10, A. G. O., January 12, 1884.

Official List of Changes in the Medical Corps of the Navy, for the week ending January 12, 1884.

MCMURTRIE, D., Surgeon. Ordered to the Naval Rendezvous, Philadelphia, Pa.

PRICE, A. F., Surgeon. Detached from the Receiving Ship St. Louis on the 15th, and ordered to the U.S.S. Ossipee on the 22d.

RUSSELL, A. C. H., Passed Assistant Surgeon. Ordered to the U.S.S. Ossipee on the 22d.

ECKSTEIN, H. C., Passed Assistant Surgeon. Detached from the Naval Hospital, Philadelphia, and ordered to the Receiving Ship St. Louis.

WELLS, HOWARD, Passed Assistant Surgeon. Detached from the Naval Rendezvous, Philadelphia, and ordered to the Naval Hospital, Philadelphia.

Medical Items.

CONTAGIOUS DISEASES—WEEKLY STATEMENT.—Report of cases and deaths from contagious diseases reported to the Sanitary Bureau, Health Department, for the week ending January 19, 1884:

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Cases.								
January 12, 1884	0	4	68	4	49	33	0	0
January 19, 1884	0	8	76	2	60	58	0	0
Deaths.								
January 12, 1884	0	1	11	5	7	10	0	0
January 19, 1884	0	5	4	0	5	14	0	0

PHTHISICAL SPUTA ON THE STREET.—M. Vigual has undertaken the rather unappetizing task of examining the sputa left by phthisical patients on the street, with reference to the presence therein of bacilli. He found the bacilli and states that, inoculated into two healthy guinea-pigs, tuberculosis resulted.

DRUG FARMS.—THE plan of young doctors, unsuccessful doctors, and doctors with leisure on their hands cultivating drug farms has been suggested. There are doubtless many medicinal plants in this country which could be cultivated with profit, even on a small scale.

STRATIFIED STATISTICS.—Dr. T. W. Grimshaw, Registrar-General of Ireland, has endeavored to find the different mortality rates in the different classes of society. For the first four weeks of 1883 the annual death-rate for Dublin averaged as follows: First class, professional men and those of independent means, 22.5 per 1,000; second (middle) class, 25.4 per 1,000; third class, artisans and petty shopkeepers, 26.1 per 1,000; fourth class, general service, 37.2 per 1,000; fifth class, inmates of workhouses, 37.2 per 1,000.

COPPER AND CHOLERA.—M. Thuillier, the French scientist who died of cholera in Egypt, had been placed upon a copper regimen before he left France, and was continuing it when attacked with the disease.

PROGRESS OF THE PROPOSED STATE FACULTY BILL.—The *Buffalo Medical and Surgical Journal* states that very favorable comments upon the above bill are received from various parts of the State. It prints a number of these letters received by the Erie County Medical Society.

SUPERVISING MEDICAL PRACTICE IN MINNESOTA.—The first meeting of the State Board of Medical Examiners of Minnesota was held last month. Eleven candidates for a license were examined and seven passed. The board also passed upon about one hundred and seventy-five diplomas from different schools.

PECULIAR MICROCOCCI IN CHOLERA INFANTUM have been found by A. Baginsky. They were present in the intestinal wall and in the dejecta. He also found numerous bacilli in these localities.

The Medical Record

A Weekly Journal of Medicine and Surgery

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Original Articles.

A SHORT SYNOPSIS OF NERVE FUNCTIONS.

BY J. T. SEARCY, M.D.,

TUSCALOOSA, ALA.

IN the light of modern physiology, we feel fully authorized in summarizing the functions of the nervous system under the general expression that they *adjust action.* This expression can be shown to include the whole range of functions, from the lowest centre to the highest brain. The intellectual cortex adjusts the individual to his environment, while the centres of the sympathetic, the cellular tracts of the cord, the medulla, and the lower brain adjust the actions of the parts and organs of the body to their surroundings. In a physiological consideration of these high orders of structure we need not engage in the more unsettled discussions of the day as to the manner in which these functions have been obtained or acquired. It seems to be a necessity of the times to accept the proposition as fully established, that the general or special use, object, function of the nervous system, considered as a whole or in its several parts, is the adjustment of the manifold and various actions of the body. This is the characteristic feature of the centres, from their lowest to their highest grades; and the grades of adjusting action vary, like their structures, from the simplest to the most complex.

A centre or ganglionic tract of the sympathetic, of the cord, or of the medulla *emits* adjusting action along its efferent, outgoing fibrils to the parts over which it has control, that is, with which it holds efferent communication; and this emitted action is *adjusted* by the controlling centre to be in accordance with the action *received* by it, brought into it by its afferent incoming fibrils. The structures and functions of the lower centres are simple affairs in comparison with the immense complexity of structure and functions of the brain, still throughout, from lowest to highest, there are plans of action similar in all the different portions, varying only in *grade.* In the lower orders of centres the adjusting action is so simple and immediate that it has received the title of *reflex action;* higher in the scale we have *automatic action;* then there are *instinctive acts;* and finally we have *intellectual action,* or thought and reason. They are all adjusting acts and are the peculiar characteristics of nerve-centres.

I do not think the discovery of the circulation of the blood marks as important an era in the progress of medicine as the discovery of what we may style the circulation of the nervous system. The discovery of the sensory and motor nerves in the spinal cord was the initiation of it. The discovery that certain fibres bear currents of nerve action from the periphery to the centres, and others bear currents outward to the periphery, has led to much more practical and important results in the philosophy of the human system than ever have arisen from the discovery of the incoming and outgoing currents of blood. The discovery of one as much transcends the discovery of the other as the functions of the nervous system transcend the functions of the vascular system.

The fact that adjusting centres or tracts adjust the emitted acts to the received ones, leads very naturally to a division of such functions into the *receptive,* the *adjusting,* and the *emissive* acts. The adjusting act can be a very prompt and immediate one, or be a very complex and deliberate one.

Coming in to the median line from the two lateral halves of the body, the afferent centripetal fibres bring incoming currents of cellular, molecular nerve action to their adjusting centres or tracts. These adjusting centres are built up upon the terminations of these afferent fibres on the sides of the median plane opposite to or over against the incoming currents, and send back to the sides whence the incoming currents came their outgoing currents of adjusting action. Hence the decussation of fibres. There are also commissural fibres that connect the bilateral adjusting centres and render their adjusting acts simultaneous and harmonious—make them *joint actions.*

In some low forms of animal life bilateral *pairs* of centres can be traced on both sides the median line, connected by fibres; each bilateral centre has a receptive part and an emitting part, separate and distinct from each other, and the adjustment is made *by the two.* Such distinction is not discernible in the structures of the human system, yet modern "localizations" in the brain point to certain tracts of the cortices from which the emitted efferent actions take their start, and other tracts into which the received afferent actions are poured; while the whole cortices seem to be engaged in the general adjustment.

My principal object in this manner of reviewing the functions of the nervous system is to make plain the general distinctive similarity in all its grades of action, namely, the *receptive,* the *adjusting,* and the *emissive* functions pertaining to all. All the centres have these three stages of action, no matter how simple or complex, how immediate or deliberate their adjusting actions are.

Very naturally, next in this line of thought comes the question, What are sensations? I might very properly say they are the *receptive acts* of the sensating portion of the nervous system, and in the light of recent investigation I am warranted in saying that this high grade of receptive action lies in, belongs to, the cerebral hemispheres. Probably I had better say *principally* belongs to the cortices of the hemispheres, for as implied all along, the receptive acts seem *graded* up to sensation: lower structures similate sensation, have lower grades of the same *sort* of action, but practically speaking they are not sensations as the term is understood. You see it asserted recently that the sensating organ, the *sensorium,* is the cortical laminæ of the cerebrum, which seems a correct statement.

More properly we ought to confine the term sensations to the receptive acts that are produced in the higher brain by the incoming currents of action brought to it along the afferent fibres whose distal extremities lie in the organs of special sense; by such currents of action, for instance, as reach these high sensating structures along the optic, the auditory, the olfactory, the gustatory, and the tactile nerves. Sensations then would be a term limited in extent, and would hold an intermediate position. Below them are all the receptive acts that do not reach the grade of sensations, and above them are grades of receptive acts that hold the high rank of intellectual perceptions. The symbols (of written or spoken language, for instance) that convey the abstract complex brain acts of one individual to another, it is true, only reach the brain through the channels of the special senses, but still very complex and abstract actions can be conveyed in

this way, and "concepts" of them produced in the brain of the second individual, provided he have a brain capable of performing that kind of action, which acts are grades higher and of another order than simple sensations, and still are on the receptive side. In other words, the perceptive brain faculty is a grade higher than simple sensations.

I believe I am warranted here in the suggestion that not only the receptive acts of this high organ, the sensorium, are sensated, but to use the term to convey the idea of a further advanced faculty or function, it is *sensitive* to its adjusting acts and its emissive acts also, which function or faculty is implied in the term *consciousness*. Consciousness, therefore, is a much more complex and a much broader term in its signification than sensation. The sensorium is therefore sensitive to, conscious of, all its receptive, adjusting, and emissive acts. The higher brain is conscious of its receptive acts (the sensations, the perceptions), of its most complex adjusting acts (thought, reason, etc.), and also of its emissive (voluntary) acts. It is tempting here to stray into the complex and entangled mazes of physiological psychology, but that is not the object of this discussion. A great majority of the acts of these high structures are phases of abstract deliberate adjustment, above the receptive sensation acts on the one side and the emissive voluntary acts on the other, though the general plan of action holds here too of the receptive, adjusting, and emissive. There are ascending, transverse, and descending portions of the curve.

A great deal of confusion has arisen in the philosophy of the world by the consideration of the acts of the high sensating, conscious brain, the hemispheres, as the work of an extrasomatic, metaphysical entity. Because the brain has the capacity of carrying its highest adjusting actions to a level above simple sensations and simple motions, therefore its functions have been considered those of a separate entity. It will simplify very much our understanding of the teachings and writings of the day that relate to the functions and faculties of *the mind* as an entity separate and distinct from the brain, if, wherever the term occurs, we substitute the word brain for mind. It is true, under this sort of a consideration, the sensorium becomes the *Ego*, but we at once remove a great source of the delusion and confusion that is current on this subject, even in medical works. Thus qualified, it becomes a plain and simple proposition, that this excessively complex organ, with excessively complex functions, is capable of being exercised, trained, developed, educated; and also, we readily see how it can be injured, disturbed, disordered, diseased, which is just as the facts of the case indicate.

The structures of the hemispheres of the cerebrum seem commensurate with the high functions assigned to them. Compared with the rest of the nervous system they are *immense* ganglionic masses. Connected by their pedicles with the upper extremity of the cord and medulla, they appear built up upon the incoming fibres that reach these high altitudes with unadjusted action, or action from the special sense organs, and receiving into special localities through these channels these actions from the opposite halves of the body, in the vast reaches of their convolutions they consciously adjust their emitted actions to these and formerly received acts (registered by functional metamorphosis). The results of the adjustment, which may have been an immediate or a most deliberate and complex procedure, are emitted from special localities ("motor tracts") along the outgoing fibres back to the opposite sides, and are exhibited in all the acts that constitute what is known as the conduct, the behavior, the speech, the deportment, the actions, the motions, of the individual. Immense stretches of fibres in the "white matter" of the hemispheres connect the convolutions of adjusting "gray matter" with each other, and also, through the commissures and the corpus callosum, tracts of white fibres connect the hemispheres with each other, so that afferent incoming currents poured into the cortices in special localities produce receptive acts of the grade of sensations, and these (sensations) receptive acts at once become, through the multiplied connections, the property of all the consciously acting adjusting centres, according to the rules and channels of adjustment; also through the commissural connections the adjusting and emissive acts of the two hemispheres are adjusted to each other.

In thus holding attention upon the functions of the high cortices, it will not do for us to lose sight of the direct connection and relation of their acts to the centres below. There is probably no line of demarcation where in the ascending scale receptive acts reach the grade of sensations, and no doubt disturbing, ascending, afferent action which lower centres are incapable of adjusting does go higher and may reach the grade of painful sensations; and, also, no doubt a great deal of frequently adjusted, repeatedly adjusted, action in the cortices under the rank of sensations, by repetition, in time becomes the work of lower centres. Such, indeed, seems to be the order of work of the cerebellum. It seems to fill the rank of the automaton. The immense amount of automatic work seems to require as much structural space as the cerebellum occupies. Intermediate in position, and largely connected with the incoming and outgoing currents of this portion of the nervous system, its province, by position and by experiment, seems to hold this grade. It adjusts the *automatic* work of the body.

In the channel of the ascending afferent connections lie the optic thalami, and because of their adjusting action in the receptive line, they have had, of late, *perceptive* functions assigned them; but this grade of action is no doubt higher. They do, though, adjust the ascending actions—it may be toward the cerebellum or toward the sensating cerebrum. On the descending side also the corpora striata seem to hold similar adjusting functions, adjusting to greater or less extent the emitted currents.

Viewed as a whole the nervous system is a complete entirety. Its multiplied connections hold in united harmony all of the normal actions of the body, not only the actions of the various grades of centres, but the various functions of the different parts. The centres equilibrate within the system the internal relations and they equilibrate without the external relations.

My object in this paper is accomplished if I have made any more plain the graded entirety of the nervous system and the general features of *receptive*, *adjusting*, and *emissive* actions common to all centres.

ABSCESS OF THE LIVER—PERFORATION OF THE DIAPHRAGM—PYO-PNEUMOTHORAX—PERFORATION OF THE LUNG—OPERATION—RECOVERY.

By WILLIAM P. NORTHRUP, M.D.,

PATHOLOGIST TO THE NEW YORK FOUNDLING ASYLUM.

I HAD the pleasure of seeing the following case with Dr. J. V. S. Woolley:

C. S——, aged thirty-five years, native of New York City; bookkeeper; single; temperate; without suspicion of syphilis. Has always been well and strong, except an attack of "inflammatory rheumatism" and "attacks of gall stones." The latter he describes as follows: Five times, in the last eight years, he has had at regular intervals, attacks of pain lasting two weeks. Pain was constant, gradually growing worse for a time, then gradually diminishing. It was located first in the epigastrium, slowly extending downward to right hypogastrium. At each attack he was obliged to go to bed and was given morphine. His complexion was always "sallow." During the month previous to the present illness patient was not in usual health. He felt languid, lost his appetite, was drowsy. This condition gradually increased, until in the last two weeks he could scarcely drag himself about and regularly fell asleep at the table after dinner.

May 13, 1883.—While at his office was seized with a sudden, severe pain, beginning in epigastrium, spreading in all directions. Pain was so severe he lay down on the office floor and groaned. On his way home in the elevated train he was obliged to stop off at three different stations and lie down, the motion of the cars so increased his pain. After a time the pain became intermittent, with half-hour intervals. Morphine was given and the pain controlled. After a few days the pain diminished and the patient seemed to be recovering.

One week from the first attack he was again seized with pain, this time located over the liver. There was prominence over the hepatic region, pain, tenderness, the edge of the liver distinctly felt at the level of the umbilicus. The pain gradually became of a dull, heavy character, often severe enough to require morphine. Temperature ranged from 103° to 103½° in the rectum. It was at this time I first saw the case, two weeks from the beginning of the severe symptoms, and six weeks from the first recognized symptoms.

The following observations were noted: Patient confined to bed; complexion sallow; emaciated; drawn, anxious countenance; tongue heavily coated; moist; dyspnœa; moderate sweating; temperature, in the rectum, 103½°; hepatic symptoms as above described; bowels recently moved by cathartics; urine free of albumen and casts; no cerebral symptoms. Takes milk reluctantly.

Examination of the chest shows fluid on right side to middle of the scapula, bronchial voice and breathing along the vertebral column; in the left lung exaggerated respiratory murmur, otherwise normal. Soon after this examination the patient informed his attendants that he was spitting up a large quantity of stuff that tasted and smelled horribly.

A permanent opening was at once made. In this case, on account of the free discharge of pus through the lung, it was deemed unsafe to administer anæsthetics, fearing while under their influence the fetid pus from the right side might flow into the left bronchus and injure the sound lung.

Patient was placed on his left side with the right elbow carried to the height of the forehead. For the incisions I followed the plan proposed by Dr. Francis Delafield, as follows: Place the patient as above described, find the first intercostal space below the angle of the scapula, follow this to five or six inches from the spines of the vertebræ, here making the first incision. Through this incision pass a strong curved steel sound downward and forward till it finds the angle made by the diaphragm and chest-wall. Press its point firmly outward in the lowest intercostal space, and cut down upon it for the second opening. Through these two openings pass a large, fenestrated, rubber drainage-tube, the protruding ends of which may be conveniently held in place by large-sized safety pins. This method of operation is thought to secure the best drainage in both standing and recumbent postures.

In the present instance the first space below the angle of the scapula was followed to the margin of latissimus dorsi, and the first incision there made. The opening was made first by cutting, the last tissues were parted by tearing. On puncturing the pleura there was a puff of most offensive gas, and at every effort of the patient a dash of fetid pus. On passing the sound downward to locate the second incision, to my amazement the sound pointed first about two inches above the umbilicus. The sensation conveyed was that the sound had passed into an irregular cavity, "the whole liver is rotten with abscesses." The question still remained whether it was the relaxed diaphragm with its concavity upward, or a perforation. The answer to this must be sought in the history.

The second incision was made in the prescribed place. When the tube had been inserted it was found to pass out of sight about four and a half inches, its upper end in the eighth space and axillary line, its lower end about two and a half inches anterior to the upper, and owing to the obliquity of the ribs, passed behind but one of them. The discharge of pus during and just after the operation is estitimated at four quarts.

Patient endured the operation well. He promised to lie still if allowed to "holler." He did both. For five days following the operation the case seemed very unfavorable. Temperature sank at once to 99–100° in the rectum; pulse was feeble; face "sallow," sunken, anxious; marked dyspnœa; marked prostration. Could not speak above a whisper, and only a word at a breath. Hands and feet cold and moist; wounds both discharging freely. Patient lay with head and shoulders raised and inclined to his right side. For nourishment he was given milk and whiskey at short intervals, prepared foods; later he was allowed to chew beefsteak, sucking out the readily soluble parts and rejecting the rest.

Strict attention was given to ventilation, but even then the odor was almost intolerable everywhere in the house. The dressings were at first oakum in large quantities. This had to be renewed four or five times a day. After two or three days the amount of discharge moderated, carbolized cotton was used, and the tube was washed out by syringing through. Carbolic acid, however weak and however applied, "burnt" him and was discontinued. Boracic acid and borated cotton, and salicylic acid were used and abandoned, The local treatment, then, for the most part consisted in throwing a stream of warm water through the tube twice a day, and changing the dressings of oakum or cotton cloths often enough to keep the wounds reasonably clean.

After five days the discharge running over the lips of the wound and skin caused wide shallow ulcers. These were very troublesome and painful. Iodoform was sprinkled upon them and relieved the pain. This new odor upon the other caused severe and obstinate vomiting in two of the attendants and it was suspended. Cloths liberally smeared with zinc ointment afforded protection enough to allow the ulcers to diminish their diameters, but not to heal entirely. After two weeks the general condition of the patient had improved greatly. Appetite was fair, color of skin clearer, discharge from wounds less and not so offensive, strength gradually increasing.

At the end of four weeks patient was walking about the house, tube was removed, discharge only from sinus. Eight weeks from the operation, patient went to his desk and did part duty.

For two months in the summer he suffered from symptoms of diffuse myelitis (diagnosis of Drs. Birdsall and Starr). After a vacation in the country of two months, he returned to his work in better flesh and general health than he had ever enjoyed before his sickness.

Seven months after the operation he was presented at Dr. Delafield's clinique, College of Physicians and Surgeons, and the following examination reported: Slight depression of thoracic wall at the site of operation. Otherwise the two sides are symmetrical. Percussion gives moderate dulness over whole right side. Vesicular murmur less distinct (distant) over same side.

Friction sounds about site of operation scars, nowhere else. Heart normal, possibly drawn a little to the right. The sallow skin which patient has had is no longer to be seen.

We have, then, a case of abscess of the liver and traumatic empyema, complicated by perforation of the lung and pneumo-pyothorax cured by thorough drainage. Antiseptics were not used satisfactorily. I cannot but feel that a large element in his recovery was the good stomach and indomitable pluck the patient possessed.

AN INSTRUMENT FOR THE ADMINISTRATION OF ANÆSTHETICS THROUGH THE NOSE, in operations about the face and mouth, has been invented by Dr. B. C. A. Winder, of Birmingham, Eng.

STATISTICS OF FOUR HUNDRED CASES OF RHEUMATISM.

By CHARLES H. MAY, M.D.,

NEW YORK.

(*Continued from page 92.*)

TABLE H.—*Comparative frequency of attacks at different ages.*

Age.	Acute.					Subacute.					Chronic.				Total all forms.
	First attack.	Second attack.	Third attack.	Fourth or more attack.	Total.	First attack.	Second attack.	Third attack.	Fourth or more attack.	Total.	First attack.	Second attack.	Fourth attack.	Total.	
Not giv'n	..	..	..	..	..	..	..	..	..	..	..	..	1	1	1
10 to 15	1	2	..	..	3	1	..	..	..	1	..	..	..	..	4
15 to 20	20	8	3	1	32	7	..	1	1	9	1	..	..	1	42
20 to 25	36	16	2	4	58	10	5	1	1	17	..	..	..	..	75
25 to 30	27	9	3	5	44	8	4	..	1	13	3	..	..	3	60
30 to 35	11	5	1	4	21	12	8	1	2	23	2	..	2	4	48
35 to 40	11	8	4	2	25	7	2	3	3	15	1	1	..	2	42
40 to 45	7	7	3	7	24	6	4	..	4	14	2	..	1	3	41
45 to 50	3	3	1	4	11	3	4	..	12	19	1	1	1	3	33
50 to 55	4	4	..	2	10	6	1	..	3	10	4	2	..	6	26
55 to 60	..	2	..	2	4	..	2	1	2	5	..	..	1	1	10
60 to 65	..	3	2	1	6	3	1	..	2	6	2	..	..	2	14
65 to 70	..	..	..	..	..	..	..	1	..	1	1	..	..	1	2
70 to 75	..	1	..	..	1	..	..	..	..	..	..	..	..	..	1
75 to 80	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
80 to 85	..	..	..	..	..	..	..	..	1	1	..	..	..	..	1
	120	68	19	32	239	63	31	8	32	134	17	4	6	27	400

From the preceding table (H) it appears that the greatest number of acute cases occurred between the ages of fifteen and thirty, and of this period the maximum number occurred between the ages of twenty and twenty-five. Thus the number of acute cases between the ages of fifteen and thirty was 134, leaving only 105 acute cases for all other ages; so that 56 per cent. of all the cases of acute rheumatism occurred between the ages of fifteen and thirty, and one-fourth of all acute cases occurred between the ages of twenty and twenty-five. It is probable that more cases of rheumatism occur in children than the preceding table would seem to indicate, since children are not as likely to be sent to a hospital, when attacked by rheumatism, as adults are to go when similarly affected. On this account the records show few cases occurring before the fifteenth year, although such cases are known to occur with greater frequency than the preceding table shows. In subacute and chronic cases only one case occurred (subacute) before the age of fifteen, and 14 cases between the ages of fifteen and twenty; the greatest number (27) occurring between the ages of thirty and thirty-five, the majority of these (23) being subacute. For any considerable period the greatest number of subacute and chronic cases occurred between the ages of twenty and fifty years.

TABLE K.—*Cases arranged according to maximum temperature in each case.*

NORMAL TEMPERATURE.

Number of case.	Duration: Of joint symptoms before entering hospital.	Duration: Of joint symptoms after entering hospital.	Duration: Of stay in hospital.	Condition when discharged.	Treatment.
		Days.	Days.		
1	42 days ..	33	33	I.	Sod. bicarb. Sal. acid and iodine locally.
2	3 days ...	17	27	C.	Salicylic acid.
3	42 days ..	25	25	I.	Potassium iodide.
4	....	6	6	I.	Salicylic acid.
5	14 days ..	34	62	I.	Salicylic acid.
6	.....	86	90	C.	Salicylic acid.
7	35 days ..	23	23	C.	Salicylic acid. Mixed treatment.
8	21 days ..	33	33	I.	Salicylic acid. Pot. and colchicum.
9	7 days ...	5	10	C.	Salicylic acid.
10	7 days ...	5	5	C.	Salicylic acid.
11	8 days ...	44	44	I.	Salicylic acid.
12	2 years ...	33	33	I.	Iron and nux vomica.
13	35 days ..	15	15	I.	Salicylic acid and iodine locally.

TABLE K.—*Continued.*

NORMAL TEMPERATURE.

Number of case.	Duration: Of joint symptoms before entering hospital.	Duration: Of joint symptoms after entering hospital.	Duration: Of stay in hospital.	Condition when discharged.	Treatment.
		Days.	Days.		
14	7 days ...	22	22	I.	Potassium iodide and iodine locally.
15	11 days ..	20	94	C.	Salicylic acid.
16	7 days ...	14	15	C.	Salicylic acid.
17	70 days ..	20	20	I.	Salicylic acid.
18	63 days ..	20	30	C.	Pot. iod. and colchicum. Salicylic acid.
19	10 days ..	15	15	I.	Salicylic acid and iodine locally.
20	1 year....	20	20	I.	Blister and iodine.
21	20 days ..	20	20	C.	Blister.
22	8 days ...	30	35	C.	Potassium iodide and colchicum.
23	8 days ...	15	15	U.	Salicylic acid. Pot. iod. and colchicum.
24	42 days ..	16	16	I.	Pot. and colch. Rochelle salt.
25	14 days ..	2	10	C.	Salicylic acid.
26	1 day	4	36	C.	Salicylic acid.
27	11 days ..	7	20	C.	Salicylic acid and blister locally.
28	3 months .	34	34	C.	Potassium iodide.
29	8 days ...	5	22	C.	Salicylic acid.
30	14 days ..	6	6	C.	Potassium iodide. Salicylic acid.
31	7 days ...	54	54	I.	Pot. iod. and colchicum, and blister
32	35 days ..	4	7	C.	Salicylic acid.
33	7 days ...	2	31	C.	Salicylic acid.
34	35 days ..	6	32	C.	Salicylic acid.
35	56 days ..	7	16	C.	Potassium iodide.
36	21 days ..	7	7	C.	Potassium iodide and colchicum.
37	28 days ..	34	34	I.	Potassium iodide, and blister and iodine.
38	2 days ...	6	64	C.	Salicylic acid.
39	3 days....	6	38	C.	Salicylic acid.
40	.....	20	20	C.	Salicylic acid.
41	3 months .	38	38	C.	Potassium iodide and iodine locally.
42	4 weeks ..	20	20	I.	Salicylic acid.
43	21 days ..	20	20	I.	Salicylic acid and iodine locally.
44	5 days....	7	7	C.	
45	5 months .	14	14	C.	Mixed treatment and blister.
46	5 days ...	21	21	C.	Salicylic acid.
47	42 days ..	15	15	C.	Potassium iodide and colchicum.
48	2 years...	90	90	I.	Rochelle salt and iodine locally. Pot. iod. Pot. iod. and colchicum.
49	21 days ..	19	23	C.	Pot. iod. and colchicum and iodine.
50	60 days ..	5	16	C.	Iron and quinine and electricity.
51	7 days ...	7	15	I.	Sod. salicylate.
52	3 months .	118	118	I.	Iron and quinine, and blister and electricity locally.
53	36 days ..	19	19	I.	Potassium iodide and iron and quinine.
54	10 days ..	3	31	C.	Salicylic acid.
55	9 months .	47	51	I.	Mixed treatment and blister.
56	3 days ...	9	28	C.	Potassium iodide and colchicum.
57	14 days ..	4	4	I.	Potassium iodide and colchicum.
58	14 days ..	6	6	I.	Potassium iodide and colchicum.
59	.....	30	34	C.	Rochelle salt. Salicylic acid.
60	35 days ..	25	29	C.	Potassium iodide and colchicum.
61	42 days ..	46	60	C.	Potassium iodide and colchicum.
62	3 years...	47	47	I.	Potassium iodide and colchicum.
63	2 days ...	60	81	C.	Pot. iodide and colchicum and iodine.
64	28 days...	72	89	C.	Atropia. Iron and quinine.
65	35 days ..	67	104	C.	Pot. iodide. Rochelle salt. Atropia. Quinine and strychnia.
66	14 days ..	38	38	C.	Potassium iodide.
67	4 months..	7	7	U.	Potassium iodide and colchicum.
68	3 months..	17	17	C.	Rochelle salt.
69	6 months..	79	86	C.	Rochelle salt and hg.; iodine locally.
70	7 days ...	48	48	C.	Salicylic acid. Potassium iodide.
71	4 months .	9	9	C.	Rochelle salt and iodine locally.
72	1 year....	8	8	I.	Potassium acetate and iron.
73	1 year....	38	95	C.	Sal. acid, and hg. and morph. locally.
74	1½ year..	150	150	I.	Ergot and belladonna. Mercury locally. Potassium and colchicum.
75	4 months..	38	40	C.	Rochelle salt and iodine locally. Pot. iodide and opium and aconite.
76	10 days ..	15	15	I.	Potassium iodide and blisters.
77	14 days ..	43	43	C.	Pot. and colch. and iron and quinine.
78	21 days...	27	27	I.	Potassium iodide.
79	5 days ...	5	25	C.	Pot. iodide and colchicum and blisters. Rochelle salt.
80	28 days ..	8	8	C.	Potassium iodide.
81	28 days ..	29	29	I.	Rochelle salt.
82	4 months..	38	38	I.	Potassium iodide and iodine.
83	28 days ..	31	118	C.	Potassium iodide.
84	4 months..	20	26	I.	Potassium iodide.
85	36 days ..	33	33	I.	Pot. iod. and mercury. Rochelle salt.
86	42 days ..	7	7	I.	Rochelle salt.
87	14 days ..	35	35	I.	Rochelle salt.
88	30 days ..	26	26	I.	Rochelle salt and iron and quinine.
89	9 months..	4	4	I.	Iron and quinine.
90	28 days ..	20	20	I.	Rochelle salt. Potassium and colch.
91	21 days ..	9	24	C.	Rochelle salt. Potassium and colchicum and hot vapor bath.
92	7 months..	25	25	I.	Rochelle salt. Potassium iodide and colchicum, and hot vapor bath.
93	5 years...	106	106	I.	Pot. iod. and colch. Rochelle salt and hot vapor bath.
94	8 months..	82	82	I.	Iron and quinine, and Rochelle salt and hot vapor bath.
95	9 months..	4	4	I.	Iron and quinine.
96	36 days ..	4	4	I.	Iron and quinine.
97	18 days ..	5	10	C.	Atropine.
98	35 days ..	36	42	C.	Rochelle salt and iodine locally.
99	6 months..	19	22	I.	Rochelle salt and morphine.
100	21 days ..	38	38	C.	Rochelle salt and iodine locally.
101	28 days ..	107	107	I.	Rochelle salt and morphine. Pot. iod. Roch. salt and iod. locally. Atropine.
102	8 days ...	14	33	C.	Rochelle salt.
103	1 year....	30	30	I.	Pot. iod. and colchicum and morphine

TABLE K.—*Continued.*

NORMAL TEMPERATURE.

Number of case.	Duration: Of joint symptoms before entering hospital.	Duration: Of joint symptoms after entering hospital.	Duration: Of stay in hospital.	Condition when discharged.	Treatment.
		Days.	Days.		
104	21 days ..	7	11	C.	Pot. iod. and colchicum.
105	2 years...	23	59	C.	Potassium iodide.
106	3 months..	12	12	I.	Iron and nux vomica.
107	5 days ...	11	12	C.	Potassium iodide and colchicum.
108	5 months..	25	26	C.	Potassium iodide and colchicum.
109	12 weeks..	9	11	C.	Potassium iod. and colchicum and ice.
110	5 days ...	4	5	C.	Potassium iodide and cinchona.
111	7 days ...	37	37	C.	Pot. iod. and colch. and ice and morph.
112	4 days ...	28	37	C.	Pot. iod. and colchicum.
113	.....	22	57	I.	Pot. iod. and colch., ice and bandage.
114	28 days ..	71	71	Died.	Tr. cimicifugæ.
115	10 days ..	22	23	C.	Potassium iodide.
116	21 days ..	22	22	C.	Potassium iodide and colchicum.
117	30 days ..	19	48	C.	Potassium iodide.
118	60 days ..	29	29	C.	Potassium iodide and blisters.
119	49 days ..	42	42	I.	Pot. iod and cinchona. Rochelle salt.
120	60 days ..	57	73	C.	Potassium iodide and colchicum.
121	4 days ...	8	16	C.	Lead and opium, and morphine and belladonna locally.
122	4 days ...	23	23	I.	Potassium iodide and colchicum.
123	.....	47	83	C.	Potassium iodide and colchicum.
124	4 years...	96	96	I.	Pot. iod. and colch. and blisters and electricity.
125	30 days ..	47	47	I.	Pot. iod. and colchicum and blisters.
126	2 days ...	18	18	C.	Quinine.
127	1 year....	68	68	I.	Potassium iodide.
128	21 days ..	181	181	I.	Pot. iod. and colch. and cold. Propylamine. Rochelle salt. Iron and quin. Pot. iod. and colch. and iodine locally.
129	6 months..	21	125	I.	Pot. iod. and colch. Pot iod. and iron.
130	7 days ...	13	14	C.	Rochelle salt. Pot. iod. and colchicum.
131	5 days ...	50	65	C.	Rochelle salt and morphine. Pot. iod.
132	4 days ...	11	11	C.	Rochelle salt.
133	35 days ..	69	69	C.	Pot. iod. and quinine. Iron and quinine. Colchicum. Iron and quinine and pot. bitart.
134	28 days ..	18	18	C.	Potassium iodide and colchicum.
135	7 days ...	..	3	C.	None.
136	36 days ..	75	99	C.	Potassium iodide.
137	14 days ..	8	8	C.	None.
138	7 days ...	28	41	C.	Potassium iod. and colchicum.
139	.....	7	7	C.	None.
140	3 months .	43	43	I.	Pot. iod. and colchicum and blisters.
141	35 days ..	11	11	C.	Potassium iodide and colchicum.
142	.....	4	4	I.	Iron and quinine. Potassium iodide.
143	6 months .	25	25	U.	Pot. iod. Pot. iod. and colchicum.
144	8 days....	15	15	C.	Potassium iodide and colchicum.
145	5 days ...	32	12	C.	Potassium iodide.
146	36 days ..	9	9	I.	Potassium iodide and colchicum.
147	90 days ..	12	12	I.	Rochelle salt and colchicum.
148	60 days ..	19	19	I.	Tonics, and Fuller's lotion locally.
149	10 days ..	10	10	I.	Tonics, and Fuller's lotion locally.
150	14 days ..	21	21	I.	Rochelle salt and Fuller's lotion locally.
151	4 days ...	14	14	C.	Pot. bicarb. and Fuller's lotion locally.
152	14 days ..	31	31	I.	Rochelle salt.
153	5 days ...	18	18	C.	Rochelle salt.
154	11 months.	10	10	I.	Potassium iodide.
155	10 days...	13	22	C.	Rochelle salt and colchicum and Fuller's lotion locally.
156	14 days ..	96	96	I.	Rochelle salt.
157	21 days ..	50	50	C.	Pot. iod. and colch. Rochelle salt.
158	30 days ..	18	39	C.	Iron.
159	7 days ...	5	28	C.	None.
160	1 year....	76	108	C.	Pot. iod. and colch. and Fuller's lotion locally.
161	21 days ..	7	10	C.	Pot. iod. and colch.
162	1 year....	97	97	I.	Potassium iodide.
163	1½ year..	21	104	I.	Pot. iod. and colch. and Fuller's lotion locally.
164	7 months .	5	5	I.	Potassium iodide and colchicum.
165	35 days ..	9	11	C.	Potassium iodide and colchicum.
166	35 days ..	20	20	C.	None.
167	14 days ..	25	25	C.	Potassium iodide and colchicum.
168	28 days ..	112	112	I.	Potassium iodide and iron and iodine.
169	60 days ..	32	32	C.	Potassium iodide and colchicum.
170	35 days ..	92	92	C.	Iron and quinine.
171	10 days ..	17	20	C.	Potassium iodide and colchicum.
172	60 days ..	18	18	C.	Sodæ bicarb. and blisters.
173	21 days ..	11	11	I.	Salicylic acid and iodine and blisters.
174	35 days ..	15	15	C.	Salicylic acid.
175	81 days ..	54	54	I.	Hot douche.
176	21 days ..	25	25	I.	Salicylic acid and blisters.
177	10 days ..	21	42	C.	Salicylic acid and morphine. Pot. iod. and cinchona.
178	14 days ..	12	41	C.	Salicylic acid and iron.
179	4 days ...	19	19	I.	Iron and nux vomica and iodine locally.
180	14 days ..	7	100	I.	Salicylic acid.
181	36 days ..	13	17	C.	Salicylic acid and iron and nux vomica. Potassium iodide and colchicum.
182	42 days ..	42	42	C.	Salicylic acid and blisters and iodine. Potassium iodide and colchicum.
183	6 days ...	18	21	C.	Salicylic acid. Pot. iod. and colch.
184	3 days ...	3	8	C.	Salicylic acid.
185	25 days ..	5	31	C.	Salicylic acid.
186	4 days ...	7	7	C.	Salicylic acid. Pot. iod. and colch.
187	21 days ..	4	4	C.	Salicylic acid.
188	3 months .	11	11	C.	Iron and nux vomica.
189	14 days ..	31	39	C.	Salicylic acid. Pot. iod. and iodine locally and blisters.
190	14 days ..	6	8	C.	Salicylic acid.
191	14 days ..	38	28	C.	Salicylic acid and blisters.
192	7 months .	28	18	I.	Potassium iodide and colchicum.

TABLE K.—*Continued.*

MAXIMUM TEMPERATURE, 99° TO 99.5°.

Number of case.	Duration: Of joint symptoms before entering hospital.	Duration: Of joint symptoms after entering hospital.	Duration: Of pyrexia.	Duration: Of stay in hospital.	Condition when discharged.	Treatment.
		Days.	Days.	Days.		
1	4 days ...	3	3	5	C.	Salicylic acid
2	4 months.	3	1	3	C.	Salicylic acid.
3	35 days ..	49	4	54	C.	Pot. iod. and colchicum and iron.
4	21 days ..	3	1	56	C.	Salicylic acid.
5	35 days ..	16	1	16	C.	Salicylic acid and iodine locally. Potassium iodide and colchicum.
6	21 days ..	15	3	18	C.	Salicylic acid.
7	49 days ..	4	3	13	C.	Salicylic acid.
8	14 days ..	5	2	37	C.	Salicylic acid.
9	6 months.	28	..	39	C.	Rochelle salt and quinine and iron; iodine locally.
10	14 days ..	11	..	11	I.	Rochelle salt.
11	56 days ..	14	..	14	C.	Rochelle salt.
12	28 days ..	63	1	3	I.	Salicylic acid. Pot. iod. and colch.
13	49 days ..	10	..	10	C.	Salicylic acid.
14	6 days ...	2	1	7	C.	Salicylic acid.

MAXIMUM TEMPERATURE, 99.5° TO 100°.

1	.....	9	1	9	I.	Salicylic acid.
2	9 days ...	3	2	5	C.	Salicylic acid.
3	7 days ...	75	1	116	C.	Salicylic acid and iodine and blisters.
4	5 days ...	4	1	4	I.	Salicylic acid.
5	28 days ..	25	..	30	C.	Potassium iodide and salicylic acid.
6	5 days ...	28	4	43	C.	Salicylic acid and iodine locally.
7	7 days ...	4	4	59	C.	Salicylic acid.
8	14 days ..	4	..	4	I.	Rochelle salt.
9	9 months.	32	..	32	I.	Rochelle salt.
10	14 days ..	28	..	37	C.	Rochelle salt. Pot. iod. and colch.
11	7 days ...	26	..	32	Died.	Potassium iodide and colchicum.
12	15 days ..	22	11	33	C.	Quinine and douche.
13	7 days ...	2	1	2	C.	Salicylic acid.
14	28 days ..	17	1	17	C.	Salicylic acid and iodine locally.
15	30 days ..	16	1	17	C.	Salicylic acid. Pot. iod. Pot. iod. and colchicum.

MAXIMUM TEMPERATURE, 100° TO 100.5°.

1	17 days ..	7	..	7	C.	Salicylic acid.
2	3 days ...	5	..	15	C.	Salicylic acid.
3	14 days ..	15	..	201	I.	Salicylic acid.
4	60 days ..	97	..	97	I.	Salicylic acid. Pot. acetate and iodine locally. Colchicum and opium. Mixed treatment. Guaiac.
5	63 days ..	6	1	34	C.	Salicylic acid.
6	5 days ...	15	4	16	C.	Salicylic acid.
7	6 days ...	7	4	21	C.	Salicylic acid.
8	10 days ..	6	6	15	C.	Salicylic acid. Iron and nux vomica.
9	2 days ...	3	..	7	C.	Not given.
10	7 days ...	53	..	84	C.	Salicylic acid.
11	12 days ..	70	2	74	C.	Salicylic acid.
12	10 days ..	16	11	20	C.	Pot. iod. and colch. and iodine locally. Salicylic acid.
13	30 days ..	30	1	50	I.	Salicylic acid.
14	8 days ...	29	..	29	I.	Salicylic acid.
15	3 days ...	8	16	20	C.	Salicylic acid.
16	14 days ..	11	26	45	I.	Salicylic acid.
17	.....	3	4	4	C.	Salicylic acid.
18	35 days ..	26	..	26	I.	Iron and digitalis and bandage.
19	14 days ..	45	5	45	I.	Douche and friction and quinine.
20	28 days ..	28	9	28	I.	Rochelle salt.
21	14 days ..	10	5	12	C.	Rochelle salt.
22	14 days ..	20	20	31	C.	Iron.
23	7 days ...	5	2	5	I.	Salicylic acid.
24	7 days ...	24	2	24	C.	Salicylic acid. Pot. iod. and colch.
25	3 days ...	8	4	31	.....	Salicylic acid.
26	8 weeks .	14	1	14	C.	Pot. bicarb. and acet. Sal. acid.
27	21 days ..	12	2	16	C.	Salicylic acid. Pot. iod. and colch.
28	2 days ...	11	1	11	C.	Salicylic acid and iodine locally.
29	28 days ..	9	..	9	C.	Pot. iod. and colchicum.
30	3 days ...	11	5	16	C.	Salicylic acid.

MAXIMUM TEMPERATURE, 100.5° TO 101°.

1	.....	5	6	27	C.	Salicylic acid.
2	4 days ...	10	..	30	C.	Salicylic acid.
3	28 days ..	17	15	17	C.	Salicylic acid. Iodine. Mixed tr.
4	7 days ...	1	7	27	C.	Salicylic acid.
5	3 days ...	8	8	28	C.	Potassium iodide and acetate.
6	10 days ..	2	1	3	C.	Salicylic acid.
7	3 days ...	18	1	18	I.	Salicylic acid.
8	10 days ..	4	2	13	C.	Salicylic acid.
9	30 days ..	4	7	10	C.	Salicylic acid.
10	14 days ..	3	2	17	C.	Salicylic acid.
11	1 year....	9	..	9	I.	Potassium iodide.
12	5 days ...	67	..	77	C.	Rochelle salt and quinine and poultices. Pot. carb. Pot. iod. and colch. and cimicifuga.
13	6 days ...	17	9	30	C.	Salicylic acid and sod. bicarb.
14	7 days ...	4	1	6	C.	Salicylic acid.
15	30 days ..	21	..	21	I.	Salicylic acid. Guaiac.
16	....	12	2	12	I.	Salicylic acid and blisters and iodine.
					I.	Sod. bicarb.
17	2 days ...	44	2	47	C.	Salicylic acid and iron. Pot. iod. and colchicum and iodine.

TABLE K.—*Continued.*

MAXIMUM TEMPERATURE, 101° TO 101.5°.

Number of case.	Duration: Of joint symptoms before entering hospital.	Duration: Of joint symptoms after entering hospital.	Duration: Of pyrexia.	Duration: Of stay in hospital.	Condition when discharged.	Treatment.
		Days.	Days.	Days.		
1	7 days ...	20	1	27	C.	Salicylic acid and iodine locally.
2	7 days ...	6	3	6	I.	Salicylic acid and iodine locally.
3	14 days ..	16	3	34	C.	Salicylic acid.
4	15 days ..	7	3	10	C.	Salicylic acid.
5	7 days ...	4	1	15	C.	Salicylic acid.
6	14 days ..	15	7	17	C.	
7	1 day	33	7	45	C.	Salicylic acid and muriate of ammon.
8	21 days ..	15	1	15	C.	Salicylic acid.
9	21 days ..	2	3	5	C.	Salicylic acid.
10	7 days ...	30	12	36	C.	Salicylic acid.
11	28 days ..	60	5	60	I.	Salicylic acid. Pot. iod. and colch.
12	4 days ...	35	..	35	I.	Salicylic acid and iodine locally.
13	4 days ...	2	2	5	C.	Salicylic acid.
14	17 days ..	16	15	42	C.	Salicylic acid.
15	14 days ..	63	24	63	I.	Salicylic acid. Rochelle salt.
16	4 months.	34	..	34	C.	Salicylic acid. Potassium carb.
17	5 months.	10	4	14	C.	Salicylic acid.
18	3 months.	31	2	31	I.	Salicylic acid and iodine locally.
19	28 days ..	35	7	35	I.	Iron and nux vom. and iodine locally.
20	14 days ..	9	3	19	C.	Rochelle salt.
21	14 days ..	26	6	26	C.	Rochelle salt and Tully's powder. Pot. iod. and colchicum.
22	3 days ...	13	7	13	C.	Salicylic acid.
23	2 days ...	9	2	9	C.	Salicylic acid.
24	6 days ...	24	16	24	C.	Salicylic acid. Alkaline mixture.
25	4 days ...	8	2	8	C.	Salicylic acid.
26	4 days ...	26	14	26	I.	Salicylic acid. Pot. iod. Guaiac, and blister locally. Pot. iod. and acetate.
27	8 days ...	20	3	21	C.	Salicylic acid. Iron and nux vom.
28	10 days ..	29	1	29	C.	Salicylic acid. Pot. iod. and colch.
29	60 days ..	21	1	21	C.	Salicylic acid. Pot. iod. and colch., and iodine.
30	3 days ...	16	3	17	C.	Salicylic acid.
31	10 days ..	15	..	38	C.	Rochelle salt.

MAXIMUM TEMPERATURE, 101.5° TO 102°.

1	4 days ...	25	3	27	C.	Salicylic acid.
2	14 days ..	8	2	8	C.	Salicylic acid and iodine locally.
3	5 days ...	9	3	39	C.	Salicylic acid.
4	21 days ..	4	1	20	C.	Salicylic acid.
5	3 days ...	22	6	27	C.	Salicylic acid.
6	7 days ...	13	1	13	C.	Salicylic acid.
7	7 days ...	17	2	22	C.	Salicylic acid.
8	5 days ...	18	17	70	C.	Pot. iod. and colch. Salicylic acid.
9	4 days ...	8	6	8	C.	Salicylic acid.
10	7 days ...	72	..	72	I.	Mixed treatment. Rochelle salt. Soda and iron.
11	21 days ..	26	18	26	C.	Pot. acetat. and ammonia acetat. Quinine and iodine locally.
12	3 days ...	3	4	11	C.	Sod. sal. and Fuller's lotion locally.
13	35 days ..	92	12	92	C.	Rochelle salt. Pot. iod. and colch. Rochelle salt.
14	3 days ...	95	3	95	C.	Rochelle salt and anodynes.
15	3 days ...	15	11	20	C.	Sod. bicarb. and quinine.
16	5 days ...	12	3	12	C.	Salicylic acid, and blisters locally.
17	7 days ...	5	2	26	C.	Salicylic acid.
18	10 days ..	18	4	18	C.	Pot. iod. and colch.

MAXIMUM TEMPERATURE, 102° TO 102.5°.

1	6 days ...	10	3	16	C.	Salicylic acid.
2	10 days ..	6	4	13	C.	Salicylic acid.
3	21 days ..	50	27	53	I.	Salicylic acid. Pot. iod. and acetat.
4	35 days ..	14	6	14	I.	Salicylic acid.
5	9 days ...	23	20	33	I.	Potassium iodide.
6	4 months.	7	5	16	I.	Potassium iodide and colchicum.
7	5 days ...	2	2	2	I.	Salicylic acid.
8	35 days ..	5	21	35	C.	Salicylic acid.
9	3 days ..	3	3	6	C.	Salicylic acid.
10	8 days ...	4	..	33	C.	Salicylic acid.
11	6 days ...	4	4	13	C.	Salicylic acid.
12	35 days ..	139	45	139	I.	Salicylic acid. Rochelle salt, and iodine and douche.
13	28 days ..	6	6	55	C.	Salicylic acid.
14	7 days ...	88	..	88	I.	Rochelle salt. Pot. and colch. Rochelle salt.
15	14 days ..	45	21	69	C.	Atropine. Quinine. Rochelle salt.
16	14 days ..	18	23	38	C.	Pot. acetate and digitalis. Quinine and belladonna.
17	3 days ...	9	3	10	C.	Pot. iod. and colch. Rochelle salt.
18	6 days ...	5	2	19	C.	Rochelle salt and Tully's powder noct.
19	17 days ..	15	9	19	C.	Ice locally.
20	21 days ..	9	6	9	C.	Salicylic acid.
21	11 weeks .	16	10	22	C.	Salicylic acid. Potass. bicarb. and acetate.
22	3 days ...	5	3	14	C.	Salicylic acid and iodine locally. Pot. iod. and colch. Iron and nux vomica.
23	6 days ...	4	3	29	C.	Salicylic acid. Iron and nux vom., and iodine locally.
24	30 days ..	3	3	36	C.	Salicylic acid. Iron.
25	4 days ...	225	55	225	I.	Salicylic acid. Pot. iod. Sod. salicylate. Blisters and iodine locally. Pot. and colch. Lead and opium locally.
26	21 days ..	52	22	52	C.	Salicylic acid. Pot. bicarb. Salicylic acid. Pot. iod. and colch.

TABLE K.—*Continued.*

MAXIMUM TEMPERATURE, 102.5° TO 103°.

Number of case.	Duration: Of joint symptoms before entering hospital.	Duration: Of joint symptoms after entering hospital.	Duration: Of pyrexia.	Duration: Of stay in hospital.	Condition when discharged.	Treatment.
		Days.	Days.	Days.		
1	7 days ...	7	..	7	C.	Salicylic acid.
2	10 days ..	20	25	27	I.	Sal. acid. Quinine. Mixed treatm't. Pot. citrate and lemon juice.
3	7 days ...	27	27	27	U.	Salicylic acid.
4	3 days ...	3	3	7	C.	Salicylic acid.
5	1 day	3	2	17	I.	Pot. carbonate. Salicylic acid.
6	3 days ...	8	..	8	C.	Salicylic acid.
7	5 days ...	8	3	19	C.	Salicylic acid.
8	7 days ...	29	..	29	C.	Pot. iod. Rochelle salt. Dil. sulphuric acid.
9	7 days ...	7	9	14	C.	Ergot. Dover's powder. Salicylic acid, and cotton and oil silk locally.
10	5 days ...	25	7	25	C.	Rochelle salt and starch diet.
11	16 days ..	8	6	40	C.	Atropine.
12	5 days ...	9	6	21	C.	Atropine.
13	2 days ...	28	10	28	C.	Rochelle salt and Tully's powder nocte, and cotton and oil silk locally. Pot. and colch. Colch.
14	2 days ...	20	6	21	C.	Pot. iod. and colch.
15	7 days ...	88	6	88	U.	Salicylic, and blisters locally. Pot. iod. and colch. and blisters locally. Sod. bicarb. Ice locally. Blisters. Muriate of ammonia.
16	21 days ..	56	4	56	I.	Blisters.
17	11 days ..	6	5	11	C.	Salicylic, and iodine locally. Pot. iod. and colch.
18	1 day ..	27	5	27	C.	Quinine, and iodine locally and lead and opium locally, and blisters and hot douche.
19	7 days ...	17	15	31	C.	Salicylic acid.
20	.....	15	6	15	Died.	Pot. iod. and colch.

MAXIMUM TEMPERATURE, 103° TO 103.5°.

1	2 days ...	6	3	13	C.	Salicylic acid.
2	7 days ...	11	4	12	C.	Salicylic acid.
3	21 days ..	40	12	41	C.	Salicylic acid.
4	21 days ..	16	6	25	C.	Pot. iod. and colch. Salicylic acid.
5	8 days ...	12	12	17	C.	Rochelle salt. Salicylic acid.
6	9 days ...	81	7	84	C.	Rochelle salt. Pot. iodide. Sulphuric acid.
7	14 days ..	17	11	22	C.	Salicylic acid.
8	14 days ..	80	6	80	I.	Pot. iod. and colch. and cotton and oil silk locally. Rochelle salt and blisters.
9	10 days ..	8	13	33	C.	Rochelle salt and starch diet.
10	6 days ...	22	13	57	C.	Rochelle salt.
11	4 days ...	48	12	50	C.	Quinine and digitalis. Iron.
12	14 days ..	7	..	7	C.	Extra diet.
13	6 days ...	10	5	10	C.	Salicylic acid and iron.

MAXIMUM TEMPERATURE, 103.5° TO 104°.

1	13 days .	50	5	57	C.	Ammonia carb. and muriate. Pot. carb. Salicylic acid. Pot. carb. Salicylic acid.
2	5 days ...	14	20	41	C.	Salicylic acid.
3	2 days ...	53	9	84	C.	Atropine, and oil silk locally.
4	21 days ..	15	5	15	C.	Rochelle salt and quinine, and Fuller's lotion locally. Pot. carb. and opium.
5	5 days ...	13	11	18	C.	Rochelle salt. Pot. iod. and iodine locally.
6	6 days ...	9	5	18	C.	Atropine and milk diet.
7	8 days ...	46	15	48	C.	Rochelle salt.
8	11 days ..	12	12	12	Died.	Pot. iod. and colch. Opium.
9	5 days . .	38	19	48	C.	Rochelle salt and morphine and quinine, and Fuller's lotion locally.
10	7 days ...	23	7	23	C.	Rochelle salt. Tully's powder and Fuller's lotion.
11	42 days ..	31	..	79	C.	Pot. iod. and colch.
12	3 days ...	99	29	99	C.	Salicylic acid. Pot. iod. and colch. Iron. Sodæ salicylate. Pot. acetate. Pot. carb. Iron.

MAXIMUM TEMPERATURE, 104° TO 104.5°.

1	12 days ..	19	13	35	C.	Salicylic acid.
2	7 days ...	48	13	55	C.	Salicylic acid.
3	4 days ...	8	9	31	C.	Salicylic acid.
4	3 days ...	36	24	47	C.	Sulphuric acid.
5	7 days ...	42	7	42	C.	Salicylic acid. Pot. iod. and carb. Fuller's lotion locally.
6	4 days ...	11	7	12	C.	Atropine and Dover's powder.
7	7 days ...	45	..	58	C.	Quinine and iron and morphine.

MAXIMUM TEMPERATURE ABOVE 104.5°.

1	7 days ...	9	34	47	C.	Rochelle and Dover's powder and muriate of ammonia (104.75°).
2	5 days ...	11	..	11	Died.	Rochelle salt (105°).
3	6 days ...	4	11	46	C.	Atropine and Dover's powder. Quinine and cold pack (107.2°).
4	3 days ...	35	7	40	C.	Salicylic acid. Sodæ salicylate, and iodine locally (106.1°).

TABLE L.—*Comparison of the results in the treatment of rheumatism by different drugs, presenting duration of joint symptoms before and after entering hospital, of pyrexia after entering hospital, and of stay in hospital, arranged according to various methods of treatment, and subdivided according to maximum temperature, designed to show the comparative value of the different methods of treatment. All these are cases which left the hospital cured.*

CASES IN WHICH THERE WAS NO DEVIATION FROM NORMAL TEMPERATURE.

Salicylic Acid.				Rochelle Salt.				Iodide of Potassium.				Iodide of Potassium and Wine of Colchicum.				First Salicylic Acid and then Potassium Iodide and Colchicum.				Atropia.				Miscellaneous.[1]				
Number of case.	Duration: Of joint symptoms before entering hospital.	Duration: Of joint symptoms after entering hospital.	Duration: Of stay in hospital.	Number of case.	Duration: Of joint symptoms before entering hospital.	Duration: Of joint symptoms after entering hospital.	Duration: Of stay in hospital.	Number of case.	Duration: Of joint symptoms before entering hospital.	Duration: Of joint symptoms after entering hospital.	Duration: Of stay in hospital.	Number of case.	Duration: Of joint symptoms before entering hospital.	Duration: Of joint symptoms after entering hospital.	Duration: Of stay in hospital.	Number of case.	Duration: Of joint symptoms before entering hospital.	Duration: Of joint symptoms after entering hospital.	Duration: Of stay in hospital.	Number of case.	Duration: Of joint symptoms before entering hospital.	Duration: Of joint symptoms after entering hospital.	Duration: Of stay in hospital.	Number of case.	Duration: Of joint symptoms before entering hospital.	Duration: Of joint symptoms after entering hospital.	Duration: Of stay in hospital.	Treatment.
	Days.	Days.	Days.		Days.	Days.	Days.		Days.	Days.	Days.		Days.	Days.	Days.		Days.	Days.	Days.		Days.	Days.	Days.		Days.	Days.	Days.	
1	3	17	27	1	90	17	17	1	90	34	34	1	8	30	35	1	14	31	39	1	18	5	10	1	63	20	30	Pot. iod. and colch. Salicylic acid.
2	..	86	99	2	180	79	86	2	56	7	16	2	21	7	7	2	4	7	7	2	28	72	89	2	14	6	6	Pot. iod. and colch. Salicylic acid.
3	7	5	10	3	120	9	9	3	14	38	38	3	21	19	23	3	6	18	21					3	..	30	34	Rochelle salt. Salicylic acid.
4	7	5	5	4	35	36	42	4	28	8	8	4	3	9	28	4	42	42	42					4	35	67	104	Pot. iod. Roch. Atrop. Quin. and strych.
5	11	20	94	5	21	38	38	5	28	31	118	5	35	25	29	5	36	13	17					5	120	38	40	Roch. Pot. iod. and opium and aconite.
6	7	14	15	6	8	14	33	6	730	23	59	6	42	46	60	6	10	21	32					6	5	5	25	Pot. iod. and colch. Rochelle.
7	14	2	10	7	4	11	11	7	5	4	5	7	2	60	81	7	7	48	48					7	21	9	24	Rochelle. Pot. iod. and colchicum.
8	1	4	36	8	5	18	18	8	10	22	22	8	21	7	11									8	7	13	14	Rochelle. Pot. iod. and colchicum.
9	11	7	20					9	30	19	48	9	5	11	12									9	7	50	65	Rochelle and morphine. Pot. iod.
10	8	5	22					10	60	29	29	10	150	25	26									10	35	69	69	Pot. iod. and quin. Iron and quinine. Colch. Iron and quin. and pot. bitart.
11	35	4	7					11	36	75	99	11	84	9	11									11	21	50	50	Pot. iodide and colchicum. Rochelle.
12	7	2	31					12	5	12	32	12	7	37	37									12	14	8	8	None.
13	35	6	32					13	90	38	38	13	4	28	37									13	..	7	7	None.
14	2	6	64					14	42	25	25	14	21	22	22									14	7	5	28	None.
15	3	6	38									15	60	57	73									15	35	20	20	None.
16	..	20	20									16	..	47	83									16	4	14	14	Potassium salts.
17	5	21	21									17	28	18	18									17	150	14	14	Potassium salts and mixed treatment.
18	10	3	31									18	7	28	41									18	60	18	18	Potassium salts.
19	365	36	95									19	35	11	11									19	30	18	39	Iron.
20	35	15	15									20	8	15	15									20	60	5	6	Quinine and iron.
21	3	3	8									21	10	13	22									21	35	92	92	Quinine and iron.
22	25	5	31									22	35	9	11									22	2	18	18	Quinine and iron.
23	21	4	4									23	14	25	25									23	90	11	11	Iron and nux vomica.
24	14	6	8									24	60	32	32									24	20	20	20	Local treatment only.
25	14	28	28									25	10	17	20									25	4	8	16	Local treatment only.
26	14	12	41									26	14	43	43									26	21	7	10	Local treatment only.
27	35	23	23									27	365	76	108													
												28	42	15	15													
27	692	365	835	8	463	222	254	14	1,194	365	571	28	1,112	740	936	7	119	180	206	2	46	77	99	26	858	612	782	
Average	26.615	13.518	30.925	Average	57.875	27.5	31.75	Average	85.285	26.071	40.785	Average	39.714	26.428	33.428	Average	17	25.714	29.428	Average	23	38.5	49.5	Average	34.32	23.538	30.076	

In these comparisons local treatment has been omitted, except in the few cases in which it was employed exclusively.

[1] Under this heading are included cases of which there were not enough to classify, or in which so many remedies had been used successively that they could not be put under any previous heading.

TABLE I.—*Continued.*

CASES IN WHICH MAXIMUM TEMPERATURE WAS 99° TO 99.5°.

Salicylic Acid.					Rochelle Salt.					First Salicylic Acid, afterward Potassium Iodide and Colchicum.					Treatment.
Number of case.	Duration: Of joint symptoms before entering hospital.	Of joint symptoms after entering hospital.	Of pyrexia.	Of stay in hospital.	Number of case.	Duration: Of joint symptoms before entering hospital.	Of joint symptoms after entering hospital.	Of pyrexia.	Of stay in hospital.	Number of case.	Duration: Of joint symptoms before entering hospital.	Of joint symptoms after entering hospital.	Of pyrexia.	Of stay in hospital.	
	Days.	Days.	Days.	Days.		Days.	Days.	Days.	Days.		Days.	Days.	Days.	Days.	
1	4	3	3	5	1	56	14	..	14	1	35	16	1	16	
2	120	3	1	3	2	180	28	..	39	2	35	49	4	54	
3	21	3	1	56											
4	21	15	3	18											
5	56	4	3	13											
6	14	5	2	37											
7	49	10	..	10											
8	6	2	1	7											
8	291	45	14	149	2	236	42	..	53	2	70	65	5	70	
Average	36.375	5.625	2	18.625	Average	118	21	..	26.5	Average	35	32.5	2.5	35	

CASES IN WHICH MAXIMUM TEMPERATURE WAS 99.5° TO 100°.

Salicylic Acid.					First Salicylic Acid, afterward Potassium Iodide and Colchicum.					Miscellaneous.					
Number of case.	Duration: Of joint symptoms before entering hospital.	Of joint symptoms after entering hospital.	Of pyrexia.	Of stay in hospital.	Number of case.	Duration: Of joint symptoms before entering hospital.	Of joint symptoms after entering hospital.	Of pyrexia.	Of stay in hospital.	Number of case.	Duration: Of joint symptoms before entering hospital.	Of joint symptoms after entering hospital.	Of pyrexia.	Of stay in hospital.	Treatment.
	Days.	Days.	Days.	Days.		Days.	Days.	Days.	Days.		Days.	Days.	Days.	Days.	
1	9	3	2	5	1	30	16	1	17	1	28	25	..	30	Pot. iod. Salicylic acid.
2	7	75	1	116						2	14	28	..	37	Rochelle salt. Pot. iodide and colch.
3	5	28	4	43											
4	7	4	4	59						3	15	22	11	33	Quinine and Dover's po.
5	7	2	1	2											
6	28	17	1	17											
6	63	129	13	242	1					3	57	75	11	100	
Average	10.5	21.5	2.166	40.333	Average	30	16	1	17	Average	19	25	11	33.333	

CASES IN WHICH MAXIMUM TEMPERATURE WAS 109° TO 100.5°.

Salicylic Acid.					Rochelle Salt.					Potassium Iodide and Colchicum.					First Salicylic Acid, then Potassium Iodide and Colchicum.					Miscellaneous.					
Number of case.	Duration: Of joint symptoms before entering hospital.	Of joint symptoms after entering hospital.	Of pyrexia.	Of stay in hospital.	Number of case.	Duration: Of joint symptoms before entering hospital.	Of joint symptoms after entering hospital.	Of pyrexia.	Of stay in hospital.	Number of case.	Duration: Of joint symptoms before entering hospital.	Of joint symptoms after entering hospital.	Of pyrexia.	Of stay in hospital.	Number of case.	Duration: Of joint symptoms before entering hospital.	Of joint symptoms after entering hospital.	Of pyrexia.	Of stay in hospital.	Number of case.	Duration: Of joint symptoms before entering hospital.	Of joint symptoms after entering hospital.	Of pyrexia.	Of stay in hospital.	Treatment.
	Days.	Days.	Days.	Days.		Days.	Days.	Days.	Days.		Days.	Days.	Days.	Days.		Days.	Days.	Days.	Days.		Days.	Days.	Days.	Days.	
1	2	11	1	11	1	14	10	5	12	1	28	9	..	9	1	21	12	2	16	1	10	16	11	20	Potassium iodide and colchicum. Salicylic acid. Potassium bicarb. and acetate. Salicylic acid. Iron.
2	3	11	5	16											2	7	24	2	24	2	56	14	1	14	
3	17	7	..	7																3	14	20	20	31	
4	3	5	..	15																					
5	63	6	1	34																					
6	5	15	4	16																					
7	6	7	4	21																					
8	7	53	..	84																					
9	12	20	2	74																					
10	3	8	16	20																					
11	..	3	4	4																					
12	10	6	6	15																					
12	131	202	43	317	1	14	10	5	12	1	28	9	..	9	2	28	36	4	40	3	80	50	32	65	
Average	11.909	16.833	4.777	26.416											Average	14	18	2	20	Average	26.666	16.666	10.666	21.666	

TABLE L.—*Continued.*

CASES IN WHICH MAXIMUM TEMPERATURE WAS 100.5° TO 101°.

Salicylic Acid.					First Salicylic Acid, then Potassium Iodide and Wine of Colch.					Miscellaneous.					
Number of case.	Duration: Of joint symptoms before entering hospital.	Of joint symptoms after entering hospital.	Of pyrexia.	Of stay in hospital.	Number of case.	Duration: Of joint symptoms before entering hospital.	Of joint symptoms after entering hospital.	Of pyrexia.	Of stay in hospital.	Number of case.	Duration: Of joint symptoms before entering hospital.	Of joint symptoms after entering hospital.	Of pyrexia.	Of stay in hospital.	Treatment.
	Days.	Days.	Days.	Days.	Dys	Dys	Dys	Dys	Dys		Dys	Days.	Days.	Dys	
1	..	5	6	27	1	2	44	12	47	1	28	17	15	27	Sal. acid. Mixed treatment.
2	4	10	..	30						2	3	8	8	28	Potassium iodide and acetate.
3	7	1	7	27						3	5	67	..	77	Pot. carb. Pot. iod. and colch. and cimicifuga.
4	10	2	1	3						4	6	17	9	30	Sal. acid and sodæ bicarb.
5	30	4	7	10											
6	14	3	2	17											
7	7	4	1	6											
8	82	33	26	133	1	2	44	12	47	4	42	109	32	152	
Average	11.714	4.125	3.714	16.625						Av..	10.5	27.25	10.666	38	

CASES IN WHICH MAXIMUM TEMPERATURE WAS 101° TO 101.5°.

Salicylic Acid.					Rochelle Salt.					First Salicylic Acid, then Potassium Iodide and Wine of Colch.					Miscellaneous.					
Number of case.	Duration: Of joint symptoms before entering hospital.	Of joint symptoms after entering hospital.	Of pyrexia.	Of stay in hospital.	Number of case.	Duration: Of joint symptoms before entering hospital.	Of joint symptoms after entering hospital.	Of pyrexia.	Of stay in hospital.	Number of case.	Duration: Of joint symptoms before entering hospital.	Of joint symptoms after entering hospital.	Of pyrexia.	Of stay in hospital.	Number of case.	Duration: Of joint symptoms before entering hospital.	Of joint symptoms after entering hospital.	Of pyrexia.	Of stay in hospital.	Treatment.
	Days.	Days.	Days.	Days.		Dys	Dys	Dys	Dys		Dys	Dys	Dys	Dys		Dys	Dys	Dys	Dys	
1	14	16	3	34	1	14	9	3	10	1	60	21	1	21	1	1	33	7	45	Salicylic acid and ammonia mur.
2	15	7	3	10	2	10	15	..	38	2	10	29	1	29	2	120	34	..	34	Salicylic acid. Potassium carbon.
3	7	4	1	25											3	14	26	6	26	Rochelle salt and Tully's powder. Pot. iod. and wine of colch.
4	21	15	1	15																
5	21	2	3	5																
6	7	30	12	36																
7	4	2	2	5																
8	17	16	15	42																
9	150	10	4	14																
10	3	13	7	13																
11	2	9	2	9																
12	4	8	2	10																
13	3	16	3	17																
14	80	20	3	21																
15	6	24	16	24																
16	7	20	1	27																
16	289	212	78	295	2	24	24	3	57	2	70	50	2	50	3	135	93	13	105	
Av..	13.062	13.25	4.875	18.437	Av.	12	13	3	28.5	Av..	35	25	1	25	Av..	45	31	6.5	35	

CASES IN WHICH MAXIMUM TEMPERATURE WAS 101.5° TO 102°.

Salicylic Acid.					Rochelle Salt.					First Salicylic Acid, then Potassium Iodide and Colchicum.					Miscellaneous.					
Number of case.	Duration: Of joint symptoms before entering hospital.	Of joint symptoms after entering hospital.	Of pyrexia.	Of stay in hospital.	Number of case.	Duration: Of joint symptoms before entering hospital.	Of joint symptoms after entering hospital.	Of pyrexia.	Of stay in hospital.	Number of case.	Duration: Of joint symptoms before entering hospital.	Of joint symptoms after entering hospital.	Of pyrexia.	Of stay in hospital.	Number of case.	Duration: Of joint symptoms before entering hospital.	Of joint symptoms after entering hospital.	Of pyrexia.	Of stay in hospital.	Treatment.
	Days.	Days.	Days.	Days.		Days.	Days.	Days.	Days.		Days.	Days.	Days.	Days.		Days.	Days.	Days.	Days.	
1	4	25	3	27	1	3	95	3	95	1	10	18	4	18	1	5	18	17	70	Potassium iodide and colchicum. Salicylic acid.
2	5	9	3	39											2	35	92	12	92	Rochelle. Potassium iodide and colchicum. Rochelle.
3	21	4	1	20											3	3	15	11	20	Potassium salts.
4	3	22	6	27											4	21	26	18	26	Potassium salts.
5	7	13	1	13																
6	7	27	2	28																
7	4	8	6	8																
8	5	12	2	12																
9	7	5	3	26																
10	13	2	4	11																
11	14	0	2	8																
11	80	126	33	213	1	3	95	3	95	1	10	18	4	18	4	64	151	58	208	
Average..	7.272	11.363	3	19.363											Average..	16	37.75	14.5	52	

(*Continued at p. 122.*)

A CONTRIBUTION TO THE STUDY OF HEREDITARY SYPHILIS OF THE NASO-PHARYNX.[1]

By SAMUEL KOHN, M.D.,

[NEW YORK.

The diagnosis of hereditary syphilis is so frequently conjectural that any case in which the pathological changes admit of no doubt or question should be recorded; for it is only by this means that our positive knowledge of the subject may be increased.

The works of Jonathan Hutchinson, Von Bärensprung, Von Rosen, Lancereaux, Bäumler, and, in our country, of Van Buren and Keyes, attest the difficulties of diagnosis, and the importance of an early recognition of the characteristic parenchymatous changes of this disease; and to us, as practising physicians, the study is of great interest inasmuch as it enables us to fulfil the causal indication in any given case, and thus to prevent suffering.

Cases of late hereditary syphilis in which timely treatment would have saved life have been reported; as it is not my intention, however, to go into an exhaustive study of the literature, which is extensive, I shall proceed briefly to relate the three cases which have come under my observation.

These three patients are children of the same parents, father and mother still living. The father is about fifty-five years of age, and remembers that when a young man, both before and after marriage, he was advised by his physician to take iodide of potassium for rheumatic pains from which he suffered.

Now let us look at the first patient, Heinrich G——, twenty-eight years of age, pale, poorly nourished, protruding forehead, conjunctivitis. He has ozæna, the discharge being slight, serous, and moderately ill-smelling. That which is of most interest is to be seen in the pharynx; the velum palati is adherent, throughout almost the whole of its extent, to the posterior wall of the pharynx; there is a small opening to the left of the median line, and quite low down, through which a small elastic catheter passes, when introduced through the left inferior meatus of the nose. The uvula is entirely gone.

The posterior wall of the pharynx is crossed and recrossed by dense, white, glistening bands of connective (cicatricial) tissue, which extend down to the œsophagus, and scarcely a spot of healthy mucous membrane can be seen. These cicatrices bind the velum to the posterior wall, and on attempting to separate the two, in order to facilitate nasal respiration, I found the tissue to be as hard and gritty as cartilage; quite profuse hemorrhage and the patient's struggles compelled me to desist from the operation. The isthmus faucium, and, in fact, the whole pharyngeal aperture, is contracted.

Such cicatrization is characteristic as the result of syphilitic ulceration, and the description given by Morell Mackenzie is so like the appearances here presented, that I cannot refrain from quoting what he says: "When the ulcerative process attacks both the posterior wall of the pharynx and the soft palate, the two surfaces may be brought together by the inflammatory tumefaction, and union of the opposing ulcerated surfaces sometimes takes place. . . . The isthmus of the fauces loses its normal arch, and the velum, or whatever may remain of it, is drawn backward by white cicatricial tissue, radiating from the hard palate to the posterior wall of the pharynx. Sometimes the communication between the nose and the pharyngeal cavity is entirely cut off, whilst only a minute opening leads to the lower part of the pharynx."

You will say that these cicatrices in a man twenty-eight years of age are due more probably to *acquired* than to *hereditary* syphilis. This assumption is negatived by his previous history; he states that as a child he never was well, suffering from moist eruptions and rheumatic pains up to his twenty-first year. He says further that he doesn't remember when he had a sore throat, and denies venereal disease.

Now look at Rosa G——, aged seventeen, his unmarried sister. We find almost the same condition of affairs in her pharynx: complete adhesion of the velum to the posterior wall of the pharynx, so that breathing can only take place per os. When she awakes from sleep the tongue and mouth are parched.

No such glistening bands of cicatricial tissue are seen in this case, the union undoubtedly having been produced by superficial erosion of the two surfaces. It has even been claimed that such superficial erosions more frequently lead to a gluing together of the opposing parts than deep ulcerations. (Dr. Schech, *Deutsches Archiv. für Kl. Medizin*, 1876, Bd. xvii., No. 2 u. 3.) The soft palate is so thin that the end of a probe introduced into the nose is felt impinging against it, by the finger introduced into the mouth. There is no cicatricial contraction.

This girl, to her own knowledge, has never been sick, and don't remember ever having had a cutaneous eruption. Nor is it possible that this adhesion of soft palate to pharynx existed during her infancy, because nursing would have been impossible under the circumstances, and death from inanition must have ensued. The most probable hypothesis is that, about the age of puberty, a superficial ulceration occurred, without much pain, as is usual in syphilis of the throat, and that this led to adhesion.

In the case first related the destruction of tissue was deep, resulting in cicatrices, while in this one the erosion was superficial, and simply glued the opposing parts together.

The third case, Lena L——, the married sister of the patients just spoken of, is twenty-three years of age, looks much older, is thin, poorly nourished, and anæmic. She has one child about two and a half years of age, which is puny, sickly, and has coryza.

This patient suffers from ozæna fetida. Examination shows the septum to be almost entirely gone, exfoliative necrosis of the vomer, and sinking in of the bridge of the nose. I have removed several necrotic pieces of bone. In this family there are four other children, the oldest thirty years of age, the youngest ten years of age, all so far apparently healthy, but what the age of puberty will bring forth in the younger children remains to be seen.

The treatment of the three cases, so far as it was necessary, was antispecific and tonic, and has been attended by all the success which was to be expected. Of course the only method of loosening the adhesions is by the knife, and this we propose some day to attempt.

The points of interest in these cases are, 1st, that distinctively syphilitic lesions are present in three members of one family, who, since they never acquired syphilis, must have inherited the taint; 2d, that the only foundation, in fact, for our diagnosis, is the assertion of the father, that in his younger days he partook largely of iodide of potassium; 3d, the time of the eruption of the disease, which in all three cases must have been about the age of puberty, for such destructive throat disease could not be outlived by an infant; or, on the other hand, had it occurred later than puberty, the patients would have remembered it; and lastly, that antispecific treatment has been beneficial. The cases are of interest, since they present to us for solution the problem of syphilis hereditaria tarda, in an aspect which I have not found in looking through all the journals at my command.

[1] Read before the Medico-Chirurgical Society of German Physicians, N. Y.

BUNSEN'S BATTERY.—A correspondent writes us complaining that he cannot keep his Bunsen cells in order. We can only say that the Bunsen cells are very little used now, and instead of attempting to make his battery work with them he had better get the Daniel or Leclanché cell.

Progress of Medical Science.

A New Theory on the Origin of Cancer.—Ever since the serious study of embryology began, the parts played by the time-honored layers of the germ of the embryo—the epiblast, mesoblast, and hypoblast—in the production of different systems of tissues have been looked upon by many as of an unalterable nature. And pathology has not been slow to take on the same principle of the exclusive origin of certain tissues from one lamina of the blastoderm. So it is that the epithelial origin of true cancer, so ably advocated by Waldeyer, is to-day the most prevalent view of the genesis of that disease. Nevertheless, the opinion that cancer cells may arise by a transformation of units derived from the mesoblast has had, and still has, some able supporters. A fresh adherent to the views of Cornil and Ranvier in regard to this has appeared in the person of M. C. Sappey (*Lancet*, November 3, 1883). The results of his latest researches, communicated to the Académie des Sciences, are brought forward to prove that encephaloid cancer ought to be recognized as resulting from a profound alteration of the leucocytes of the blood. This alteration is regarded as being at first essentially local. But whilst passing the primary focus of the disease, the white corpuscles of the blood become transformed, and may take one of three directions. Some corpuscles migrate from the capillaries to the diseased focus, and there become the centre of the formation of a tumor which tends to increase without limit. Others are carried to the lymphatic glands, which soon undergo a secondary transformation. The third portion remains in the venous blood, and serves to propagate cancer more widely throughout the organism. Whether we consider cancer at its commencement, or in its course, or at its latest stage, it is always the white blood-corpuscles which appear upon the scene and play the principal *rôle*. Such are the views of M. Sappey. He finds sufficient evidence in the following observations to warrant him in publishing the opinions given above. Examination of the blood drawn from the veins of an encephaloid tumor showed many leucocytes in the process of degeneration into cancerous elements. Leucocytes undergoing the same process were also to be found in the tumor itself, and similar changes were discovered in the circulation at large. We find it impossible, however, to concur with these latest teachings. The presence, in the venous blood taken from the neighborhood of a tumor, of large cells with segmented nuclei and abundant fatty granules, is to our mind of very doubtful significance, and certainly of but little importance. If the units were really cancer cells, of which we have our doubts, there seems to us to be no reason for supposing that they were derived from the leucocytes. It is not at all improbable that the white corpuscles of the blood do assist in the formation of cancers and other new growths not necessarily of inflammatory origin. But on such scanty data to postulate the doctrine that the leucocytes are the source of encephaloid cancer can only be regarded as an illegitimate exercise of the scarcely scientific imagination.

Belladonna in Nervous Dyspepsia.—Gallerani, following the advice of Lussana, has treated with success a case of nervous stomach trouble of two years' standing, accompanied by profuse ptyalism, by means of belladonna. He gave two-fifths of a grain of extract belladonna divided into two doses, one to be taken an hour before luncheon and the other an hour before dinner, during the first three days of treatment. This dose was increased to three-fifths of a grain daily during the last four days.—*Rivista Clinica*, November, 1883.

Syphilitic Neuralgia.—In a paper read before the recent Medical Congress in Freiburg, and published in the *Deutsche Medicinische Wochenschrift* of October 24, 1883, Professor Seeligmüller said that neuralgia of syphilitic origin was of much more frequent occurrence than is commonly supposed. Neuralgias from this cause have a particular localization. The painful pressure points are confined to a zone two or three finger breadths in width, passing from one ear to the other directly over the top of the head, like a round comb. The nerves concerned are the auriculo-temporal and lesser occipital. He distinguishes carefully between these neuralgias and syphilitic periostitis of the bones of the cranium, especially of the parietal bones. He relates a case in which a diagnosis of syphilis was made from the presence of this form of neuralgia alone, although there were no other clear signs of the disease and the presumption from the circumstances of the case was against it. In time other evident symptoms of syphilis were declared. Small doses of iodide of potassium effected a cure in his cases after all the usual remedies had failed.

A Ready Means for Cauterizing Poisoned Wounds.—Dr. Moser recently presented to the Paris Academy of Medicine a little invention of his which he called the *crayon-feu*, for ready use in the application of the actual cautery to poisoned wounds from the bites of venomous snakes, mad dogs, etc. It consisted in a little cylinder with sharpened extremity, enclosed in a case which also contained matches for lighting it. The composition of the stick is as follows: Powdered charcoal, 30 grams; nitrate of potassium, 4 grams; iron powder, 5 grams; benzoin, 1 gram; agglutinating powder, q. s. To be made into forty crayons. These sticks are hard and burn readily and for a sufficient time to cauterize the wound.—*Journal de Médecine de Bruxelles*, vol. lxxvii., 1883.

Anatomical Investigations on Bright's Disease.—Dunin endeavors to explain the cause of Bright's disease and its relation to nephritis in general. There are two general questions which he considers must be answered first in order to approach the subject intelligently. 1st, Are all forms of nephritis one and the same malady? 2d, Where is the starting-point of Bright's disease; is it to be sought in degeneration of the epithelium or in the vessels or connective tissue? In answering the first question attention is to be directed at first to the chronic forms. These have been divided into two classes: 1, the so-called white kidney (nephritis parenchymatosa); 2, the granular kidney (nephritis interstitialis). A third form, the small white kidney, is considered as furnishing an intermediate stage between these two both in clinical and anatomical relations. His own studies have led him to the conclusions already reached by Weigert, that the histological changes in all forms of Bright's disease are always of the same character, and that it is only their combination which differs. These changes are: 1, swelling, destruction, and proliferation of the epithelium; 2, infiltration and new formation of connective tissue; 3, degeneration of the glomeruli; 4, thickening of the vascular walls. Even the amyloid kidney forms no exception to this, as in it all these appearances have been seen, and the amyloid degeneration is simply added to this. Such the author considers are the common phenomena of Bright's disease, and he then takes up some of the various forms of nephritis to see if they correspond or not. First, the forms which follow the acute infectious diseases. All authors are agreed that that which follows scarlet fever is to be regarded as a typical form of acute Bright's, and is to be placed in the closest relation to it. Of the other contagious diseases the kidneys of recurrent typhus are often to be placed in the same category, while those of typhus abdominalis are seldom so associated. In regard to the identity of all nephritis and Bright's disease: A comparison is made between the large kidney with rather a finely granular look, which is related to the kidney of chronic passive congestion, and the so-called granular kidney of Bright's disease. The clinical picture is found to be different, and in the first case the microscope shows destruction of

the epithelium, collapse of the tubules, and an insignificant hyperplasia of the connective tissue. According to him the lesions are brought about in the following manner: The epithelium is first attacked in consequence of an insufficient supply of blood (venous stasis, atheroma of the arteries, old age). This slowly proceeds, and the cells are floated off by the water, the lumen of the tubes remain patent for a time, and then finally the walls collapse. In this way an apparent increase of connective tissue results. The vessels become dilated, and the organ presents the appearance of an angioma. In this there is no evidence of an inflammatory action, and therefore it must evidently be excluded from the class of Bright's disease. In Bright's disease, on the contrary, he considers that all the structural constituents of the kidney are affected at the same time, and it should justly be called a "diffused nephritis." Since it is of this nature it is inflammatory, and its commencement is to be sought in changes in the vessels followed by an emigration of white blood-corpuscles into the glomeruli, the tubules, and the interstitial spaces. But how does the epithelium behave in all this? As is well known, its degeneration is constant, but in the greater number of cases this is retrogressive, and is to be referred to the same causal working that lies at the foundation of the inflammation; but, on the other hand, it is more frequently to be regarded as resulting from disturbed nutrition. So long as the whole process is confined to the disturbed nutrition of the epithelium simply there can be no talk of Bright's disease, and it is only when the addition of inflammatory disturbances of the vessels has taken place that true Bright's can be said to have developed.—*Boston Medical and Surgical Journal*, November 29, 1883.

Injections of Blood into the Pleural Cavity.—Dr. Bernardino Silva relates in the *Rivista Clinica* for October and November, 1883, some experiments made by him upon animals to determine the amount of absorption of defibrinated blood injected into the pleural cavity. His experiments were ten in number, made upon rabbits, and led him to formulate the following conclusions: 1, Absorption of defibrinated blood proceeds through the pleura as well as through the peritoneum; 2, the effects of the injection of homogeneous blood (rabbits' blood was used in all the experiments) are seen in an increase in hæmoglobin and in the number of red globules within four or five hours after the injection, and are prolonged for more than four days afterward; 3, the greatest increase in hæmoglobin takes place within the first twenty-four hours; 4, the absorption of hæmoglobin is greatest when the quantity of blood injected is small. If so much blood is injected as to produce atelectasis no increase of hæmoglobin is observed; 5, the transfusion of blood into the pleural cavity causes an increase in the excretion of urea—an increase, however, which is preceded by a diminution during the first twenty-four hours. This last conclusion, the author says, needs further confirmation. In a note at the end of his article Dr. Silva states that Professor Bozzolo has made an inter-pleural transfusion in the human subject, with beneficial results, in a case of anæmia complicated with malaria cachexia, ascites, anasarca, and albuminuria.

The Curability of Locomotor Ataxia.—The opinion has recently been expressed by Dr. Debove that the sclerotic lesions existing in the spinal cord at the time when the lancinating pains are experienced, that is to say at the beginning of locomotor ataxia, preclude any hopes of curing this affection. In opposition to these views Dr. Desnos affirms that there are cases in which the lesions existing in the posterior columns of the cord are curable. He relates a case of syphilitic tabes in which the pains were very severe and the inco-ordination marked, which was cured, at least all the symptoms were made to disappear, in five weeks by iodide and bromide of potassium with the protiodide of mercury. Dr. Cadiat has reported a case of undoubted locomotor ataxia in which the autopsy showed a simple congestion of the cord without sclerosis, and Dr. Desnos regards his case as one of that kind.—*Annales de Dermatologie et de Syphiligraphie*, November 25, 1883.

Stretching of the External Nasal Nerve.—Trousseau states that this operation is very simple and devoid of danger and is destined to replace, in certain cases, iridectomy and sclerotomy, succeeding often where these operations have failed. It often permits of the postporement or even abandonment of more grave operations, and where it fails it leaves the field open for other therapeutic measures. It is useful in the first stages of glaucoma, calming or preventing the pains, re-establishing, in greater or less degree, the acuteness of vision, and diminishing the intra-ocular tension.—*Rivista Clinica*, November, 1883.

Phthiriasis of the Eyelids.—Dr. Santos Fernandez, of Havana, relates several cases of this affection observed by him in patients applying at his ophthalmological clinic. The parasite was always the *pediculus pubis*, which was found at the base of the eyelashes, which were covered with its nits. The symptoms of this blepharitis are an intolerable itching, worse at night, and, consecutive to this, an inflammation of the palpebral conjunctiva. The affection might readily be taken for a more grave disease unless a careful inspection by the aid of a lens were made of the edges of the lids. The treatment consists in the application of yellow precipitate ointment and a weak lotion of bichloride of mercury.—*Le Courier Médical*, No. 42, 1883.

The Diagnostic Value of Thoracic Pulsations in Pleurisy.—In a certain number of cases of pleurisy occurring on the left side of the chest, there may be observed pulsations synchronous with the action of the heart. These pulsations may sometimes be observed throughout a considerable extent of the inferior part of the thorax, sometimes they are limited to a small area in some portion of the chest where a fluctuating tumor exists, or in exceptional instances they may be seen in the lumbar region. In an interesting article on this subject in the November and December issues of the *Archives Générales de Médecine*, Dr. J. Comby states that these thoracic pulsations are due to a transmission of the cardiac impulse through the sclerosed lung and the superimposed layer of fluid. He says that they are met with only in cases of old empyema where the lung is contracted and adherent to the pericardium. In every pleurisy of the left side where these pulsations exist the fluid is purulent. The pulsations indicate the presence of pus, and not only this, but they are a sign that complete and incurable retraction of the lung has taken place.

Causation of the so-called Autophonia.—While it is conceded that autophonia, *i.e.*, the very annoying, loud, trumpet-like resonance of one's own voice- or breath-sounds, occurs from patency of the Eustachian tube, an explanation has been hitherto wanting of this symptom in cases of acute or subacute middle-ear disease with obstructed tubes. Since a stopping up of the tubes is not of itself able to give rise to autophonia, Dr. Brunner thinks to explain its occurrence in these cases in another way. He says that the inflammatory swelling of the membranous walls of the tubes in recent otitis media prevents the easy falling together of the walls and consequent valve-like closure. And if the voice penetrates into the lower third of the tube, it will resound in the ear although the upper part be plugged up.—*Centralblatt für Chirurgie*, October 27, 1883.

Nephritis from Compression of the Ureters in Cancer of the Uterus.—In an article published in the *Revue de Médecine* for November, 1883, Dr. Artand relates at length the post-mortem findings in several cases of cancer of the womb, in which one or both ure-

ters were compressed or obliterated by the neoplasm. There was secondary nephritis from this cause, with either hypertrophy or atrophy of the organ, and further, an hypertrophy of the left ventricle of the heart. His investigations led him to conclude that compression of the ureters in the course of uterine carcinoma gives rise to renal lesions of varying characters, according to the duration and degree of obstruction. When the compression is but slight, the kidney is of normal size or slightly increased. The histological lesions in these cases consist in a nuclear infiltration around the uriniferous tubules and vessels (glomeruli and arteries), an hypertrophy of the glomeruli, and a dilatation of the convoluted tubules whose epithelium has undergone a granulo-fatty degeneration. The straight tubules have very nearly their normal diameter, and the epithelium lining them is apparently unaltered. This he calls the first stage. When the compression has existed for some time, the ureter and the pelvis of the kidney are greatly distended, and the kidney itself is atrophied. The degree of atrophy is in direct proportion to the distention of the ureter and pelvis. The histological lesions consist in a change to a fibrous condition of the primary nuclear infiltration, and a collapse of the straight tubules, whose epithelium has undergone embryonic degeneration. The glomeruli are either fibrous or cystic. The convoluted tubules present the same alterations in their epithelium as in the first period. This is the second stage. These lesions resemble those caused by ligation of the ureters in experiments upon animals. They differ from the latter, however, in that they constitute an acute diffuse nephritis, in the development of which the inflammatory element plays the chief rôle. On the other hand, it is the mechanical element that is most prominent in the lesions following the aseptic ligation of the ureters. These kidney lesions, following upon compression of the ureter from cancer of the uterus, are very frequently accompanied by hypertrophy of the heart, confined exclusively to the left ventricle, and scarcely ever accompanied by interstitial myocarditis.

The Inoculability of Cancer.—Various experiments have been made to determine whether cancer can be transmitted from one individual to another by means of inoculation. These may be divided into four classes: The inoculation of "cancer juice" beneath the skin; injection of cancerous matters into the stomach; injection of the same into the blood-vessels; and the transplantation of cancer by grafting. Experiments made by the first two methods have given negative results, and while in certain cases tumors have been developed after the injection of cancerous matters into the veins, the histological examination has not determined their cancerous nature. Attempts made to transmit cancer from man to the lower animals by grafting have been unsuccessful, and the results obtained by grafting from one animal to another of the same species have been doubtful. It would seem, however, when the recipient of the grafts is already affected with cancer, or predisposed thereto, that it is possible to transmit the disease in this way. In the *Revue de Chirurgie* for November, 1883, Dr. Nicaise relates a case in which a secondary tumor was developed at a punctured point in a case of sarcoma of the uterus. He concludes, from a study of the various experiments and clinical observations, that the transmissibility of cancer from man to the lower animals, from one animal to another of the same species, is not proven. But in the human species, sarcoma, under certain conditions, is capable of being developed secondarily in the same individual by grafting, and the same is true concerning certain papillary tumors of the ovaries.

Salicylate of Bismuth in the Treatment of Typhoid Fever.—Dr. H. Desplats has treated a number of cases of typhoid fever with salicylate of bismuth (one part of salicylic acid to two parts of bismuth) with very satisfactory results. Even in the height of the disease the effect of the remedy upon the temperature is very evident. From 75 to 90 grains a day caused a reduction of temperature of about 5° F., beginning soon after the administration of the remedy. A larger dose than this was seldom given. When the drug was given continuously for several days, the reduction of temperature became permanent. The patient suffers at the same time a certain loss of strength, but the author never saw any dangerous degree of weakness occur. The remedy has no apparent influence upon the other symptoms, though in certain cases it seemed to have an aborting effect upon the disease. Dr. Desplats prefers it to the sodium salt, as it is less soluble, and probably on that account is less quickly excreted.—*Centralblatt für Klinische Medicin*, November 17, 1883.

Articular and Osseous Crises in the Foot in Locomotor Ataxia.—A peculiar deformity of the foot, occurring in the course of tabes dorsalis, has been recently observed by Drs. Charcot and Féré. The same affection has also been described by Page, in the *British Medical Journal* for the current year. The inner border of the foot, opposite the scaphoid and first cuneiform bones, is arched forward, while the metatarsus is bent outward as if it were luxated, presenting a sharp angle at the first tarso-metatarsal articulation. There is no inflammation, no pain, no crepitus. At the autopsy of a case of this kind the following changes were noted: The under-joint surface of the astragalus, as well as the corresponding part of the os calcis, were worn away and presented vegetations along their edges. The talus itself was fractured at the neck. The scaphoid and cuboid bones were greatly deformed. The first cuneiform bone was very large, and it and the second were anchylosed with the corresponding metatarsal bones. The third cuneiform bone was broken into numerous fragments. All the tarsal and metatarsal bones were spongy, soft, and lighter than normal. These changes were independent of any traumatism, and had nothing to do with any suppurative processes. The authors thought that they were analogous to the lesions occurring in the long bones and larger articulations in locomotor ataxia.—*Centralblatt für Klinische Medicin*, November 10, 1883.

Intestinal Worms as a Cause of Invagination.—In a number of autopsies practised upon animals dying with symptoms of intestinal occlusion, M. Mégnin found in a certain number that the obstruction was due to intussusception. In nearly all these cases he found a large number of ascarides in the intestine, and thought that the irritation caused by their presence had induced such energetic peristaltic movements as to force a portion of the small intestine through the cæcal valve. The usually accepted causes of invagination are defective hygiene and enteritis, and it is probable that the intussusception in these cases was referable to an enteritis set up by the presence of large quantities of the lumbricoids, rather than to simple irritation.—*Revue Médicale*, December 1, 1883.

Treatment of Bromidrosis of the Feet.—Dr. Vieusse claims to have obtained excellent results in the treatment of this affection, whether there is a simple hypersecretion of sweat or whether there is also severe pain, by frictions of the part with subnitrate of bismuth in powder. Contrary to the general opinion, he never fears and has never seen any evil results following upon the rapid suppression of the hyperidrosis. The subnitrate of bismuth seems to have a purely local action, rendering the skin harder and more resisting. The drug probably also exerts some influence over the sudoriparous glands and sebaceous follicles, changing the quality and quantity of their secretion. Its action might also be due to some modification in the subcutaneous capillary circulation. Sometimes the subnitrate of bismuth causes only a temporary relief in hyperidrosis, but it cures permanently the bad odor and the tenderness of the feet, which are the chief causes of complaint in this affection. —*Revue Médicale*, December 1, 1883.

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SPECIALISM IN THE COUNTRY.

THE increase of specialists and of special departments in medicine is the most prominent feature of the medical history of to-day. The attendant advantages and dangers have been often and variously discussed. Those who are dolorously inclined assure us that in time the general practitioner will become merely a sign-post to point out the specialist, who has himself become only an artisan in the diseases of his chosen organ. Those of happier mind see in the growth of specialism and the division of labor a bright promise of the more rapid advance of medical knowledge to the position of a veritable science.

Without discussing now the merits of these two views, we would call attention to a particular phase of the specialism movement, viz., the gradual appearance of specialists in the smaller cities, large towns, and even in the well-populated rural districts of the United States. We have often been reminded by contributions received of the existence of this fact. In a city of fifteen or twenty thousand inhabitants or over in the East, in some parts of the West, and to a much less extent in the South, one or more physicians may often be found who devote themselves especially to ophthalmology, gynecology, laryngology, or some other department of medicine. These are generally young men who have passed some time in special hospitals, or have studied special courses in the large cities of Europe and America. Their dissemination throughout the country is a mark of the decentralizing process which is, to a certain extent, affecting medicine as well as many other things. For at the present day with the abundant means existing for rapidly diffusing knowledge and skill, a monopoly in these things at least is impossible. No physician or surgeon possesses therapeutic resources or technical skill beyond what others can gain. And it is the ambition of many of our younger medical men when graduating to learn not only that which fits them for general practitioners, but to obtain additional skill in some special branch. Every year there go out into practice, therefore, a considerable number who have some special as well as general equipment for their work. It cannot be said that these provincial specialists meet with a great and flattering success. Indeed, they have many difficulties to encounter.

If they attempt a general as well as special practice their medical brethren are apt to be jealous; and we have heard that they not only refuse to ask them in consultation but send to the large cities cases which could be perfectly well treated by their colleague at home. On the other hand, few can afford in provincial centres to devote themselves to a specialty alone.

Notwithstanding such obstacles there is and will continue to be a diffusion of special medical skill through the country. And it cannot but have a beneficial effect. It is a stimulus to general practitioners, and is undoubtedly helpful to the public, many of whom cannot afford to go to cities for special treatment.

The general practitioner will also learn in time a few things which he does not seem to be able to comprehend now. One of them is that two-thirds, perhaps, of the professional work done by specialists could just as well be done by general practitioners, if they would have the patience and foresight to equip themselves for it. We mean, for example, that by diligent application for a short time, with good clinical advantages, they could learn to treat with a specialist's skill the ordinary run of diseases of the throat, skin, eye, nose, uterus, etc.

On the other hand, while none but a genius can be an "all-around specialist," it is not impossible for a physician to be skilful in several branches. Perhaps this fact will in time help provincial specialism. At any rate, we are glad that it exists, and in the interests of the whole profession shall encourage its growth.

CHOREA AND RHEUMATISM.

THE much-vexed question of the relation between chorea and rheumatism was made the subject of discussion at a recent meeting of the Neurological Society and was well discussed by Dr. Chapin, in a paper read at that time and printed in THE RECORD. Some new statistics were added by the participants in the discussion as well as by the author of the paper. We call attention to the matter, therefore, for this reason, and because coincidently Dr. Octavius Sturges has published a contribution to the same subject in the *Lancet* of November 10th. Dr. Sturges is already known for his previous studies of this question, by which he has been led to the conclusion that rheumatism is not the important etiological factor in chorea usually supposed. In his present paper, he gives analyses of 70 cases of chorea admitted to the hospital for sick children, Great Ormond Street, London. He gives the following results of his analyses of these, and of his 132 previous cases:

Of the 70, eight had had rheumatic fever previously; ten had had some form of rheumatism previously; one was doubtful on this point. Comparing these figures with the 132 cases previously given, it will be seen, he says, that in the latter number there were seven who had had rheumatic fever; fourteen or fifteen who had had rheumatism; six doubtful; five not ascertained. Thus 202 cases yield fifteen who had had rheumatic fever; twenty-four or twenty-five who had pains supposed to be rheumatic; and twelve doubtful or unknown. "We have thus, on a review of over 200 cases, a percentage of acute rheumatism of 7½, and a percentage of joint pains, presumably rheumatic, of about 12; or grouping the two together, we have 19 per cent.—say one in five—of choreic patients (children) who have probably had some form of rheumatism."

The above makes the proportionate number of rheu-

matic histories in cases of chorea considerably less than is usually given. Some of the statistics relating to this subject may be seen in the accompanying table.

	Number of cases of Chorea.	Articular Rheumatism.
Hughes	108	14
Hughes and Brown	104	85[1]
Sée	128	61
Steiner	252	4
Ziemssen	21	4
Sturges	202	15
Collective Investigation Committee	128	31
West	66	16
Vogel	12	0
Chambers	33	6
Oger	80	8
Gerhard	30	4
Dana	38	3
Chapin	(See Chapin's paper).	

The great difference in the results obtained, as indicated by the above figures, shows that there are serious difficulties in the way of obtaining exact information upon this matter. The histories of these cases have to be extracted from those who are non-expert and who are often ignorant and stupid. Dr. Sturges refers to this fact, and has taken especial pains to make his inquiries with care and exactness.

It has been suggested that the per cent. of rheumatism among children under fourteen or fifteen years of age belonging to the poorer classes, from whom most of the statistics are collected, is in all cases large. The general opinion, to be sure, is that rheumatism is rare in children, an opinion which Sée has given strength to by his investigations. He found that among 11,500 children received into the Children's Hospital at Paris, there were only 48 cases of rheumatism without chorea, while there were 61 cases with chorea. This proportion is so different from the experience of others that we are inclined to doubt the trustworthiness of Sée's statistics altogether.

Sturges has studied the matter with care, and states that the normal proportion of cases of rheumatism among persons received as hospital patients cannot be less than 15 per cent. for children and 20 per cent. for adults. In order, therefore, for the per cent. of rheumatic histories in choreic children to be above the normal, it must exceed 15 per cent. His own statistics show that the rheumatic cases but slightly exceed this average. Other statistics have shown that rheumatism is more frequent in boys, while chorea is four or five times more frequent in girls. The evidence at present thus compels one to be careful in ascribing too close a connection between rheumatism and chorea. There is undoubtedly some relation between the two diseases, but its exact nature is a problem for the future to solve.

THE RUGBY GAME OF FOOT-BALL.

In his recent report, President Eliott, of Harvard, has called attention to the subject of college athletics, and particularly to the subject of the Rugby game of foot-ball.

It is stated that the foot-ball eleven of a leading college set out for its last contest with eight substitutes and a surgeon. The accounts in the public press show that few public games occur without two or more persons being laid up for a time at least. It is not very surprising, therefore, that the Faculty of Harvard College has, for the above and other reasons, forbidden its students to play the game until some modifications of the rules have been made.

It is a misfortune that a number of our most popular sports have been made either too difficult or too dangerous for any but the most robust and skilful to indulge in. We learn that in some of our smaller colleges foot-ball is nearly abandoned because the old game is "old-fashioned," and the new game is only adapted for heavy weights. There are yet no statistics to show to what extent the Rugby game is seriously dangerous to life or limb, though fatal accidents have been reported in English journals.

It is, however, a perversion of the true end of "manly sports" to make them intrinsically difficult and within the reach of but a vigorous few. In the Rugby game of foot-ball, the *person*, not the ball, is made the point of attack, and the rules are therefore radically defective, looked upon from the point of view which we, as conservers of bodily health, must take.

Foot-ball, as formerly played, was one of the most invigorating and manly of sports, and one which almost any one could to some extent indulge in. The question seems to be whether Anglo-mania shall be allowed to restrict the usefulness and pleasure of which the American game was a source.

THE THERAPEUTICS OF MALARIAL DISEASE.

It is well known that quinine sometimes fails in the treatment of intermittent fevers, both regular and irregular. This sometimes depends upon its mode of administration: it is soluble in acids; insoluble in alkalies. If given only when the stomach is empty, the alkaline mucus of the stomach will render the quinine insoluble, and large quantities will be taken to little advantage. But if acids be freely used in conjunction with the quinine it will all be kept soluble and active. Lemon-juice, which is a citrate of potash, is not as good as citric, phosphoric, or tartaric acid, all of which, like most acids, are not only good germicides, but good solvents of quinine. Again, ever since Bence Jones discovered animal quinoidine in the healthy human body, it has been suggested that the persons most subject to malarial diseases are deficient in this important ingredient. Unless we can force or teach these backward constitutions to make their own quinoidine in sufficient quantity, we must perhaps supply it by oft-repeated doses, which, after all, is not a perfectly satisfactory way. Still it is a useful and convenient one.

Again, as quinine is rapidly eliminated by the kidneys, considerable quantities appearing in the urine in three hours after it is swallowed, and all being thus removed in the course of two days, repeated doses are absolutely essential; and we thus can understand why relapses after the partial and interrupted use of quinine so often take place.

But frequently something else besides the absence of the assumed normal quinoidine in the body of the patient prevents the full action of quinine. Among these, what is called biliousness often obstructs it. As bile is alka-

[1] These cases had rheumatism or cardiac murmur.

line, an excess of it will, of course, interfere with the solubility and activity of quinine.

It is easier to sweep out a large quantity of bile, when it has got into the bowels, than it is to prevent its excessive formation; and for prompt palliative action it is better to do so. Rochelle, Epsom, or Glauber salts, either in simple solution or in one of the many mineral waters, like Hunyadi, Friedrichshall, Pullna, etc., are very good, especially if a little sulphate of iron be added to each purgative dose.

Aloes is also an excellent remedy; the main efficacy of Warburg's tincture depends upon the large quantities of quinine and aloes which it contains; but one or two pills, of two grains each, of extract Socotrine aloes and resin of jalap, will carry off all the bile they find in the bowels, and then quinine and aloes may be given alone.

Gastro-intestinal catarrh, duodenal catarrh, and catarrhal jaundice, with the large quantities of alkaline mucus which attend them, present very serious difficulties to the absorption of quinine. Blue pill, or a few grains of calomel, will meet this indication temporarily, especially if followed by the acid, or pyro-phosphate of soda, or by muriate of ammonia.

But marsh malaria, as we often meet with it, does not come solely from vegetable decomposition, for a more or less animal element is too often combined with it. To say nothing of the small insects, worms, reptiles, etc., which die in large quantities with decaying vegetation, there is often soakage from privies, manure pits, drainage from kitchen sinks, and exhalations from obstructed house-drains. Again, to the borders of marshes, ponds, and sluggish streams, much house and stable refuse is apt to find its way. Then, what for want of a better term we call a typho-malarial disorder, arises, frequently so regular or so marked that it is often supposed to be purely miasmatic malarial; yet it withstands quinine. Some of these cases will yield at once to arsenic, sometimes aided by quinine and sometimes not. Carbolic acid is probably useless, but iodine is often available, and also bromine.

The consequences of the long-continued action of malaria upon the blood are disastrous. It loses its red globules, while the white diminish in size and increase in number; the liver and spleen may enlarge, the stools become clay-colored, and the urine may contain albumen or be deeply colored with bile pigment. Iron and aloes meet this indication; either equal parts of wine of iron and tincture of aloes, or sulphate of iron and aloes, or sulphate of quinine with sulphate of iron, with or without aloes, all in pill form. The iodide of iron is a good remedy.

The essential oils of cloves, peppermint, mustard, pepper, eucalyptus, etc., are good malariacides. The peppers, mustard, and cloves can be used freely as condiments; and table salt is not to be despised; it is decomposed in the stomach, and its muriatic acid goes to reinforce the gastric juice.

We throw out these suggestions for the consideration of our learned and ingenious readers, many of whom may be able to improve upon them.

The deeper and more complex forms of town and house malaria, which Dr. J. C. Peters has so aptly called civic malaria, made up from the exhalations of obstructed underground watercourses and drains, soakage from gas-pipes or sewer mains, leakage from badly paved streets and gutters, and various nuisances in houses, will be discussed at another time.

INSANITY AS AFFECTING A LIFE INSURANCE POLICY.

An important case on the question of insanity as affecting an insurance policy which excepts the company from liability in case of suicide, and the insane person kills himself, has recently been passed upon by the Supreme Court of the United States, and is of great interest as showing the progress of medical and legal opinion on this point. It has been held at various times that if a person kills himself in a moment of frenzy, and his policy excepts death by suicide, he cannot recover. Such is not, however, the general ruling of the courts, and now our highest judicial tribunal has affirmed the broader and more liberal opinion. The rule is thus stated: "A self-killing by an insane person understanding the physical nature and consequences of his act, but not its moral aspect, is not a death by suicide within the meaning of a condition in a policy of insurance upon his life, that the policy shall be void in case he shall die by suicide, or by the hands of justice, or in consequence of a duel or of the violation of any law." The testimony as to insanity is thus summed up: "Members of his family and persons well acquainted with him in his business testified that he was naturally of a lively, cheerful, sanguine disposition; that in 1874 he met with heavy losses in business, and his son died suddenly by falling from a window; that from that time forward there was a marked change in his demeanor; 'he was always walking with his head bowed down and a gloomy expression, and the entire vitality and cheerfulness which the man had before was gone;' 'he was gloomy, dull, mopish;' 'he sat down in the office and moaned and would be gloomy there;' 'he always complained of his head; he would say "the trouble is here; it is all in my head, my head;"' 'that shortly before his death he had a vacant expression in his face;' 'he had a queer expression about his eyes; it was a sort of wild, unnatural expression;' 'that kind of expression which the human face takes on when one is frightened, a far-off, glassy look, as though the mind was dwelling on nothing;' 'he was very much changed and was very excitable, he looked very different and had a wild expression, he staid a great deal by himself when he came home from business, he would go to his room and lie on his bed with his hat and overcoat on, and not come out to his meals.' The experts called for the plaintiff testified that he was suffering from that kind of unsoundness of mind which they termed melancholia."

Upon this testimony the jury decided that the plaintiff was insane, and the Court decided the legal inference to be that if his "reasoning faculties were so far impaired that he could not fairly estimate the moral consequences, the moral complexion of the act, even though he could reason sufficiently well to prepare with great deliberation and to execute his design with success, nevertheless he was so far insane that the plaintiff is entitled to recover on this policy. . . . If a man's reason is so clouded or disturbed by insanity as to prevent his understanding the real nature of his act, as regards either its

physical consequences or its moral aspect, the case appears to us to come within the forcible words uttered by the late Mr. Justice Nelson, when Chief Justice of New York, in the earliest American case on the subject (Breasted *v.* Farmers' Loan and Trust Co., 4 Hill, 73, 75), speaking legally also (and the policy should be submitted to this test), 'self-destruction by a fellow bereft of reason can with no more propriety be ascribed to his own hand than to the deadly instrument that may have been used for the purpose,' and whether it was by drowning, or poisoning, or hanging, or in any other manner, 'was no more his act, in the sense of the law, than if he had been impelled by irresistible physical power.'"

A STATE BOARD OF MEDICAL EXAMINERS.

THE resolution offered by Dr. Sturgis at the last meeting of the County Medical Society involves more important questions than appear at first sight. To ask the Society to endorse any particular bill, no matter from what source it emanates, which has for its ultimate object the creating of a Board of Examiners who shall decide concerning the qualifications of all those who desire hereafter to begin the practice of medicine in this State, is allowable; but we believe the Society acted wisely in not further committing itself to any plan than it did by the adoption of the judicious substitute offered by Dr. Roosa.

The profession throughout the State is well aware that the proposition to create a State Board of Examiners is not new, and is one upon which there has already been expressed a great diversity of opinion. Previous discussions have developed the fact that the interests involved are so numerous, the rights liable to be invaded so well established, the friends of any measure cannot reasonably expect to obtain for it the endorsement of the profession until it has been discussed and so matured that conflicting opinions will in the main be reconciled. To accomplish this it is essential that, however desirable the ultimate end to be gained may be, all action should be subjected to the most careful scrutiny before any proposition is accepted.

Moreover, there is grave doubt concerning the propriety of the Committee on Legislature of the State Medical Society asking that their plan be endorsed by County Medical Societies before being submitted to the body which empowered the Committee to act. The subject-matter of the resolution belongs legitimately and primarily to the State Medical Society, and doubtless will be one of the topics brought up for discussion at the coming annual meeting.

HIGHER EDUCATION AND THE MEDICAL COLLEGE OF VIRGINIA.

THERE are in the United States one hundred and twenty medical colleges. Of these only twenty-seven require three courses of lectures; only thirteen have a term of more than twenty-four weeks, and the number which really insist upon a sufficient preliminary education is extremely small. These colleges have over twelve thousand matriculated students, and every year graduate over four thousand men, who, for the most part, start out at once to join the ninety thousand doctors already in the land. The number of medical colleges and of medical practitioners in this country is disastrously excessive.

It is for this reason that we have chosen on every proper occasion to criticise the medical colleges which continue to supply an unfelt want, by graduating after two courses of lectures men who have been subjected neither to rigid preliminary examinations nor careful practical training in hospital wards.

It was in accordance with what we considered were the best interests of the profession that we criticised the Medical College of Virginia. The main charges were incompetent clinical instruction and training, things which can but occur in colleges which exact neither three courses of lectures nor a high standard of preliminary education.

We have received a courteous protest from the faculty of this college, claiming that our remarks were founded upon misapprehension and imperfect information. We must decline to publish the letter in full, since it adopts the policy of refuting charges by berating its critics. We are, however, anxious to do the faculty full justice, and we cheerfully admit that the reputation of the college for careful didactic teaching cannot be impeached.

We cannot withdraw what we have said, however, as to the main issue, for our accusations were made advisedly and after due consideration. The college, by its own confession, exacts no preliminary examinations unless it sees fit.

Its course consists of terms lasting twenty-four weeks, and its catalogue does not state that it requires students to study medicine even two years. Students are required to dissect for only one session, and in a special announcement the faculty offer to lend a "helping hand" to those "whose circumstances render them unable to meet the usual pecuniary obligations"—a sentence which in these days has a wide significance.

Let the Medical College of Virginia place itself upon the plane of higher education if it wishes to escape criticism. The country does not need more doctors, and the colleges which turn them out on the short-course plan are actually injuring the profession and society.

THE NEW YORK POLYCLINIC.

IF evidence were wanting to prove that in the education of medical students in American colleges a more thorough clinical and laboratory course of study was demanded by most graduates, and among these the better class of practitioners, this evidence would be found in the perusal of the quarterly circular announcement of the institution the name of which forms the heading of this article.

It cannot fail to gratify the pride of every medical man who looks forward to and is courageous enough to insist upon a higher standard in medical schools, to see in the rapid growth and success of the idea represented in this institution a rebuke to the system of wholesale graduation and an endorsement of that which is in the line of true progress.

Organized in 1881, the Polyclinic was opened to practitioners in November, 1882. For the first year of its existence its class numbered 161, while for the first four

months of the session commencing October 1, 1883, more than one hundred practitioners have matriculated, a total of over two hundred and sixty within the first fifteen months of its existence.

We learn with pleasure that the management have purchased the property, a portion of which they have heretofore occupied, and that it is to be converted into a Polyclinic School and Hospital, thoroughly equipped with every requisite for post-graduate study.

THE SIMS MEMORIAL FUND.

In the present issue we commence the publication of the list of subscriptions to the Sims Memorial Fund. There is, as yet, hardly time to hear from many quarters, but a good start has certainly been made. Any amount, from one dollar upward, will be gratefully appreciated by the Committee. A small sum carries with it as good and as true a motive as does a large contribution. While the latter is always acceptable, the former will be warmly welcomed as affording opportunities for a more widespread expression of sentiment. We are glad to learn that many of the medical journals and medical societies are disposed to aid the Committee in making collections.

News of the Week.

Professor Theophilus Parvin, M.D., LL.D.—The Alumni Association of the Jefferson Medical College gave a reception in honor of Professor Theophilus Parvin, M.D., LL.D., on Monday evening, January 28, 1884, at the St. George Hotel, Philadelphia. A large number of representative medical gentlemen were present.

Congress and Adulterated Foods.—The following resolutions were introduced last week by Mr. Green, of North Carolina, and referred to the Committee on Public Health:

Whereas, It is popularly charged and generally believed that divers and various articles of food, drink, and medicine are adulterated by admixtures with baser and usually deleterious substances; and

Whereas, Such adulterated compounds are injurious to public health, and calculated to shorten human life; therefore,

Be it resolved, That the Committee on Public Health be authorized and directed to inquire into the truth of said alleged abuse, and to report to this House the result of their investigation, at as early a day as practicable; and if it shall be shown that such practices exist, then to suggest or recommend in their report what further legislation, if any, is necessary to correct the wrong. And that they may the more effectually do their work,

Be it further resolved, That said Committee be, and they are hereby, empowered to send for persons and papers, and to employ such chemical and medical experts as they may deem necessary to carry out the end, aim, and object in view.

"Annals of Anatomy and Surgery."—The following announcement is made: "On account of the departure of the senior editor, Dr. Pilcher, for Europe, in January, and the expected departure of his colleague, Dr. Fowler, for a similar trip abroad later in the season, the publication of the *Annals of Anatomy and Surgery* is necessarily suspended during their absence. If circumstances shall seem to warrant the resumption of the journal with the beginning of another year, due notice will be given."

The Northwestern Medical College of St. Joseph, Mo.—The State Board of Health of Missouri has fully exonerated the Northwestern Medical College, of St. Joseph, from all charges against it, and recognizes it as standing on a level with the best schools of the State. There was a full meeting of the Board, assisted by Drs. Rauch and Taliafara, of the Illinois Board.

The Kansas City Hospital College is the title of a new medical institution started at Kansas City, Mo. It contains an obliging mixture of allopathic and homœopathic professors.

Tubercle Bacillus Notes.—Kussner has found that by injecting tuberculous sputa into the trachea of dogs and rabbits, tuberculosis was produced; the injection of non-tuberculous sputa does not do this.

Weichselbaum, of Vienna, has published a criticism of Spina's work and a defence of Koch's conclusions.

Dr. Koch publishes, in the *Deutsche Medicinische Wochenschrift*, an elaborate review of the criticisms made upon the bacillus of tuberculosis and defends his original views as to its nature, retracting nothing. He brings forward no new experimental evidence. The prophylactic importance of the discovery is enlarged upon.

Professor Gegenbauer, of Heidelburg, is likely to succeed to the Chair of Anatomy in the Berlin University, left vacant by the death of Reichert.

Diphtheria and the Mercurial Preparations.—The number of persons who are using calomel or corrosive sublimate in the treatment of diphtheria seems to be increasing. Dr. Von Koszutzki, in the *Allgemeine Medicinische Central-Zeitung*, has recently collected some of the reports upon this subject and contributed some results of his own experience.

A British Tribute to Dr. Marion Sims.—In commenting on the great professional services of Dr. Sims, the *British Medical Journal* says: "His achievements are written in imperishable letters in the annals of modern surgical practice; and there are thousands now living, and succeeding thousands in generations yet unborn will have reason to rise up and call him 'blessed.' The greatest success which any surgeon of genius can hope to achieve is to be able to definitely and largely add to the power of surgery to save life, to relieve misery, and to effect cure. This success Marion Sims attained in a degree which few can hope to attain."

The Prevalence and Prevention of Syphilis.—At a meeting of the Montreal Board of Health last December the following resolution was presented by Judge Dugas and unanimously adopted: "That in order to obtain a better knowledge of the sanitary state of the city a circular be addressed to all the physicians of Montreal and surrounding municipalities, requesting them to make known to this Board the result of their experience concerning the extent of the ravages of syphilis and of venereal diseases in general; to state whether they consider it opportune to establish restrictive measures for the prevention of those diseases, and what, in their opinion,

would be the best means to be adopted for that end." The *Canada Medical and Surgical Journal* states that about thirty replies have been sent in, the general tenor of which is that the disease is very prevalent, and that restrictive measures are necessary.

BARNUM'S WHITE ELEPHANT seems likely to prove an object of pathological interest. The animal is said not to be white, or even gray, but to be of the ordinary color interspersed with pink patches. Professor Flower considers these patches to be due simply to a loss of pigment, while Mr. B. Squire contends that they are a form of skin-disease.

LEGISLATION AT WASHINGTON.—Mr. John J. O'Neill has introduced in the House of Representatives a bill to prevent the adulteration of food and drugs. It has been referred to the Committee on Agriculture, and is known as House Bill No. 899. It is apparently the same as the bill that was reported favorably by Mr. Horr, of the Committee on Commerce, winter before last. The *Sanitary Engineer* commends it.

THE COLUMBIA VETERINARY MEDICAL COLLEGE and the American Veterinary Medical College have united, and New York has now but one veterinary school.

A STATE WHERE THERE IS ROOM FOR MORE DOCTORS.—In Louisiana there is but one physician to every nine hundred and nine inhabitants, and the *Medical Brief* states that there are a number of places where physicians are actually in demand. Grand Cave, San Patrice, Robeline, Provencal, Prudhomme, and Pineville are given as places where openings exist. Although the ratio of physicians to population is large, it should be remembered that Louisiana is not a rich or thickly populated State.

"THE INTERNATIONAL REVIEW OF MEDICAL AND SURGICAL TECHNICS" is the title of a new quarterly journal published in Boston, and edited by Drs. Joseph H. Warren, Charles Everett Warren, and Willard Everett Smith. It is stated to be the official organ of the American Association of the Red Cross. The object of the editors is to collect and publish all the new medical and surgical inventions and devices as they appear.

NEW NAMES FOR FRENCH HOSPITALS.—There is at present a disposition, on the part of the Municipal Council of Paris, to effect a change in the names of the Paris hospitals. Many of the lycées have long since borne the names of persons connected with the Republic, and ceased to retain the names of their founders. A proposal has already been made to deal with the hospitals in a similar way, and to go so far as to suppress even such unpolitical titles as "Pity" and "Charity," and to substitute for them "Solidarity" and the "Rights of Man." The "Hôtel Dieu" will henceforth be "Ambroise Paré;" "St. Louis" and "St. Antoine" are to bear the names of "Boerhaave" and "Velpeau" respectively. Its proposer, Dr. Fiaux, is the author of "The Commune and the Civil War," and a member of the Municipal Council. The press are loud in their protests against this sweeping change of nomenclature, the *Voltaire* not excepted.

PROFESSOR BILLROTH'S ANTISEPTIC PRECAUTIONS.—The Vienna correspondent of the *Gazzetta degli Ospitali* was recently invited to a laparotomy in Professor Billroth's clinique, in the following note: "Dr. —— is hereby invited to the operation of ——, which is to take place ——. It is understood that Dr. —— undertakes not to visit the same day, before the operation, sick rooms, dissection rooms, or other places in the Pathological Institute, and not to wear clothes which he may be in the habit of wearing in visiting these places."

A GENERAL MEDICAL HOSPITAL FOR THE INSANE.—"A proposal is under consideration," says the *Lancet*, "in a philanthropic quarter for the establishment in London—with a branch establishment for convalescents on the Continent—of a general medical hospital for the insane and persons afflicted with what are supposed to be 'incurable' nervous diseases. The scheme is to place this projected institution on the footing of an ordinary hospital, with a staff of honorary physicians and surgeons who are not specialists, but who will be able to bring to the treatment of cases of mental derangement that general acquaintance with physiology, pathology, and therapy which—if it be true that mind is simply brain-function, and that mental disorder is only, and always, a symptom of physical disorder or organic disease—ought to be adequate for the investigation, and if possible the remedy, of mind-troubles. The institution will not be conducted as an asylum, but as a hospital; and, if necessary, application will be made to Parliament for special powers to carry it on without its being subjected to the interference of the Commissioners in Lunacy, although it will, of course, be at all times, and to the fullest extent, open to their inspection and amenable to their authority, so far as the protection and comfort of the patients who may be *certifiable* are concerned."

The idea of putting insane asylums more upon the basis of ordinary hospitals has been advocated for some time in this country.

CONDEMNING A PENSION SURGEON.—The board appointed by the Commissioner of Pensions to investigate the charges of irregular practices made against Dr. Azel Ames, a member of the Boston Board of Medical Examiners of the Pension Office, has made a report to the Commissioner, in which they say that, after careful examination of the affidavits laid before them, it is their judgment that Dr. Ames is shown to have violated the instructions to examining surgeons, and to have been guilty of conduct unbecoming a member of the board to which he was attached, and that he is, therefore, unfit for the duties of such a position.

A PROPOSED NATIONAL PHARMACOPŒIA.—In the House of Representatives, January 8, 1884, read twice, referred to the Committee on Ways and Means, and ordered to be printed, Mr. Randall introduced the following bill:

A bill to prepare and publish a national pharmacopœia for the United States:

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Secretary of the Treasury shall, as soon as practicable, detail two officers of the Marine Hospital Service, and the Secretary of War shall detail two officers of the medical staff of the Army, and the Secretary of the Navy shall detail two officers of the medical staff of the Navy, for the duty of compiling and preparing a pharmacopœia, which shall be known as the "National Pharmacopœia of the United States of America," and shall be held and accepted as the standard for

the purveying, compounding, and dispensing of drugs or medicinal agents, and shall be taken as authority in the Treasury Department on all questions arising under the tariff laws of the United States with regard to the nomenclature, description, and purity of drugs or remedial agents, and shall further be received in evidence in the United States courts. And the matters contained in the said pharmacopœia shall be free for use by all authors and commentators for the benefit of the medical and pharmaceutical professions and of the community at large; and it shall not be lawful for any one to reprint and publish the said pharmacopœia as a whole.

SEC. 2. That the medical officers detailed as above provided shall invite the American Medical Association and the American Pharmaceutical Association, at their next annual meetings, to form committees of not more than three members from each of the said associations, which committees, if so appointed, may co-operate with the above-named medical officers in the preparation of the said pharmacopœia, forming a board which shall have power from time to time to add to its number as may in its judgment be necessary, and which shall elect a chairman and a secretary, and adopt such rules as it shall see fit for the expediting and perfecting of the said pharmacopœia, which, when completed, shall be printed under the supervision of the said board; and an edition of not less than 5,000 copies shall be printed for use in the several Departments of the Government of the United States; and copies may be furnished to private persons in accordance with the provisions of section 3,809 of the Revised Statutes.

SEC. 3. That for the purpose of defraying the necessary expenses of preparing the said pharmacopœia the sum of $5,000 is hereby appropriated out of any moneys in the treasury, not otherwise appropriated, and the same shall be disbursed under regulations to be prescribed by the Secretary of the Treasury.

SEC. 4. That the said pharmacopœia shall be revised once in ten years, upon the plan embodied in this act.

[The necessity for such a work does not appear. In any event the proposed publication cannot be made as reliable as the one already sanctioned by the pharmaceutical and medical professions. It is somewhat curious to notice the intention of Government to protect this venture. Altogether it appears to be a scheme that is essentially Philadelphian in origin, and consequently cosmopolitan in aim. The profession is evidently satisfied with what it has, and why complicate matters by advocating a change which cannot possibly be for the better. —ED.]

THE SIMS MEMORIAL FUND.

To the Medical Profession and Others throughout the World:

The great achievements of Dr. J. Marion Sims call for some more lasting testimonial than obituaries and eulogies. To him medical science is indebted for much brilliant and original work, especially in gynecological surgery. Those who have been benefited by his teachings and new operations, and such as have had the direct advantage of his personal skill are among the first to recognize and acknowledge this debt.

To him is due the honor of giving the first strong impulse to the study of gynecological surgery in America.

It is believed that the medical profession everywhere, the vast number of women who owe their relief from suffering directly to him, and those who realize the benefits he first made possible, will gladly unite thus to honor the man through whose original and inventive genius such blessings have been conferred upon humanity.

At the suggestion of many friends, therefore, the subjoined committee has been organized, and it is proposed that a suitable monument be erected to his memory in the city of New York.

To this end the active co-operation of the medical profession and the many other friends of Dr. Sims throughout the world is respectfully solicited. Contributions of one dollar and upward may be forwarded to the journal which has been constituted the treasury of this fund—THE MEDICAL RECORD, New York.

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Edwin Walker, M.D., Evansville, Ind	10 00
H. J. Garrigues, M.D., New York	10 00
H. G. Piffard, M.D., New York	5 00
William Fox, M.D., Milwaukee, Wis	5 00
W. A. Taylor, M.D., Booneville, Miss	5 00
Robert Stuart, M.D., Zion, Ky	1 00
O. L. Shivers, M.D., Newbern, Ala	1 00

Reviews and Notices.

PHOTO-MICROGRAPHS AND HOW TO MAKE THEM. By GEORGE M. STERNBERG, M.D., F.R.M.S., Surgeon U.S.A., etc. Boston: James R. Osgood & Co. 1883.

THE author proposes, in this volume, to give such information as shall enable microscopists generally to make photo-micrographs, and he introduces as specimens of the art about forty pictures, which are also employed in illustrating the text. From the preface we learn that the work is intended for beginners, and as there are at present many who are anxious to begin, the title will attract much attention to the book.

Part I. is devoted to a description of the apparatus and processes and introduces a photograph of the various instruments as arranged for work. The heliostat of Keith, the only one mentioned, is strongly recommended, and particularly as having been first made under the direction of Surgeon J. J. Woodward. While it is true that Mr. Kübel made this instrument at the suggestion of Dr. Woodward, it is also true that the doctor found it entirely inadequate for purposes of photo-micrography and discarded it. It is at best a flimsy toy, of no practical use. Of that *bête noir* of the beginner, the adjustment of the heliostat, nothing is said, and we are afraid that the instructions on arrangement of the light and focusing will be found meagre. Much depends upon the relative position of the primary and secondary condensers to the objective, and the absolute precision with which the light is centralized. The chapter on photographing proper are clearly written and will prove valuable, especially as they are not encumbered with a lot of antiquated formulæ. The gelatino-bromide dry process is employed to the exclusion of others, and is beyond doubt the most convenient for photo-micrographic negatives.

The second part of the volume consists of plates with a pretty liberal descriptive text. These plates are reproductions by the "heliotype" process of negatives made from time to time by the author, the subjects being mostly histological. An attempt is here made to give the work a popular character, with the title "Elementary Lessons in Biology," and the subjects are selected in illustration of the fact that the lower forms of life are unicellular, while the tissues of the higher animals and plants are made up from, or are derivatives of cells. The list includes the algæ, fungi, epithelia, blood-disks, plant structures—pollen-grains, epidermis, and hairs—diatoms, parasites, etc. If the young photo-micrographer is not more successful with his negatives than the author seems to have been he will have no cause to be particularly pleased with his work. The illustrations of vegetable tissues, when the structures present strong contrasts and the amplification is small, would be considered pretty successful for a beginner. In pathology—where the art is destined to be of great value—the only specimen we find is one fortunately labelled "round-celled sarcoma." We say "fortunately," for in truth the label affords the only clue to a diagnosis. The pictures of blood-disks are much better than those of many other subjects, but the only photo-micrograph that deserves a place in a work of the character and pretensions of the volume in hand is the one facing p. 190—a pustule of *navicula lyra*, magnified eight hundred diameters.

We are sure that the student seeking information upon the art of photographing microscopic objects will be far from encouraged in attempting the work from a perusal of this book. But our author seeks to disarm criticism by disclaiming any effort to equal the work of Dr. Woodward—work which is invaluable and will be enduring. Dr. Sternberg will find that the American microscopist will not be satisfied in starting out with the avowed purpose of attaining only a moderate success. We are only sorry to add that, in our opinion, the only encouragement the work will afford will be that which may stimulate some man to write a book on "Photo-micrographs and How to Make Them."

WIESEN AS A HEALTH RESORT IN EARLY PHTHISIS. By A. T. TUCKER WISE, M.D., L.R.C.P., M.R.C.S. London: Baillière, Tindall & Cox. 1883.

THE author of the present unpretentious little work has already published a similar volume on Davoz Platz, which is doubtless familiar to all interested in obtaining reliable information concerning foreign health resorts for phthisical patients. Wiesen is but little known at present, and being in consequence little visited, suffers none of the drawbacks of overcrowding. Those seeking information concerning new health resorts for consumption should read this guide-book.

THE PHYSICIAN'S DAILY POCKET RECORD. By S. W. BUTLER, M.D. Edited by D. S. BRINTON, M.D. Eighteenth year. Philadelphia: Office Medical and Surgical Reporter. 1884.

THIS familiar visiting list comes to hand with its various tables thoroughly revised. It is well bound and of convenient size.

PHTHISIS: ITS CAUSE, NATURE, AND TREATMENT. By JOHN PARKIN, M.D., Corresponding Fellow of the Royal Academies of Medicine and Surgery of Madrid, of Barcelona, and of Cadiz; Fellow of the Royal College of Physicians, Edinburgh, etc. London: David Bogue. 1883.

THE views expressed in this little work are unique and interesting. Almost every page bears evidence of the author's wide acquaintance with the literature of his subject. The book is divided into two chapters. The first is given up to the discussion of the usual theories concerning the cause of phthisis. Dr. Parkin entirely rejects the "germ theory," and regards the presence of bacilli in tubercle as the effect, never the cause, of the disease. Phthisis, he maintains, is a general disease, inflammatory in nature, and produced by an *external* agent. This agent is malaria, and malaria is the cause of phthisis.

In the second chapter the "antidotal treatment" of phthisis is explained. According to the doctor, the proper remedy is carbonic acid gas, or those hydrocarbons which are readily converted into that gas when taken into the body. Carbonic acid gas is effective against phthisis, because it is the antidote to malaria, this poison being the cause of the pulmonary disease.

The volume is printed in large, clear type, and is altogether very neatly gotten up.

TYPES OF INSANITY. An Illustrated Guide in the Physical Diagnosis of Mental Disease. By ALLAN MCLANE HAMILTON, M.D. 4to, pp. 36, with ten plates. New York: William Wood & Co. 1883.

THE text of this work consists of five chapters, the first four being descriptive of the physical condition of the insane, the last being devoted to the subject of the commitment of the insane and the lunacy laws in various States. The first chapter describes the general appearance of the insane, physiognomy, posture, conformation of head, etc. The author omits some of the well ascertained facts on this subject, though he commits no positive errors. The second chapter is devoted to the condition of the special organs, the third to that of the bodily functions, the fourth to the examination of the patient, his dress, habits, etc.

Perhaps the author is not to blame that we feel a little disappointed after reading the book. For it seems to us when we have finished it that there is not a great deal to be learned through a physical examination of the insane. We are inclined to think that Dr. Hamilton has not made quite so much of his subject as he might, and that it should have been treated with more thoroughness and especially on the basis of a better classification than

the absurd one here adopted and prevalent among American asylum superintendents. For all this we must add that the book is written in an easy and attractive style, and that it will interest the general practitioner, who can hardly fail to get many useful hints from it. The ten lithographic plates accompanying the text are beautiful examples of drawing and lithography, but we have seen better types than several of those which are presented.

HINTS IN SICKNESS: WHERE TO GO AND WHAT TO DO. By HENRY C. BURDETT. 8vo, pp. 260. London: Kegan Paul, French & Co. 1883.

THE larger part of this book is essentially a directory to the various hospitals, dispensaries, asylums, homes, etc., in England. Though very useful in that country, it is not of much interest to Americans. The second part consists of one hundred and sixty pages devoted to "Hints in Sickness," "Treatment of Emergencies," and "Sick-room Cookery." It has no especial merit. The last section is frankly given up to advertisements of foods, medical preparations, mineral waters, and appliances. The book will no doubt supply a want that is felt in England, and be of some value for reference in this country.

THE TREATMENT OF WOUNDS AS BASED ON EVOLUTIONARY LAWS. By C. PITFIELD MITCHELL, Member of the Royal College of Surgeons, etc. 8vo, pp. 29. New York: J. H. Vail & Co. 1883.

THE argument submitted by the author of this little work was originally intended for contribution to medical literature, yet, from the general and widespread interest taken by the profession in the subject which it presents, we are pleased to see it published in this form. The subject is thoroughly handled in the minutest detail, the discussion presented in the most able manner, and will, we hope, command the earnest attention of the profession.

CLINICAL CHEMISTRY. An Account of the Analysis of Blood, Urine, Morbid Products, etc., with an Explanation of some of the Chemical Changes that occur in the Body in Disease. By CHARLES HENRY RALFE, M.A., M.D., Cantab. Illustrated with sixteen engravings. Philadelphia: Henry C. Lea's Son & Co.

THIS is one of the most instructive little works that we have met in a long time. The author is a physician and physiologist as well as a chemist, consequently the book is unqualifiedly practical, telling the physician just what he ought to know of the applications of chemistry in medicine. Dr. Ralfe is thoroughly acquainted with the latest contributions to his science, and it is quite refreshing to find the subject dealt with so clearly and simply, yet in such evident harmony with the modern scientific methods and spirit.

DIE PLANZENSTOFFE IN CHEMISCHER, PHYSIOLOGISCHER, PHARMACOLOGISCHER UND TOXICOLOGISCHER HINSICHT. Für Aerzte, Apotheke, Chemiker und Pharmakologen. Bearbeitet von DR. AUG. HUSEMANN, DR. A. HILGER, u. DR. TH. HUSEMANN. Zweite völlig umgearbeitete Auflage. In Zwei Bänden. Dritte Lieferung. Berlin: Verlag von Julius Springer. 1883.

THIS volume carries the work from p. 665 to p. 984. It is an especially valuable one, as it takes up the alkaloids of opium. All the articles are written with the thoroughness characteristic of the whole of this invaluable work.

CHEMISTRY: GENERAL, MEDICAL, AND PHARMACEUTICAL, including the Chemistry of the U. S. Pharmacopœia. A Manual on the General Principles of the Science and their Applications in Medicine and Pharmacy. By JOHN ATTFIELD, F.R.S. Tenth edition. Specially revised by the Author for America. Philadelphia: Henry C. Lea's Son & Co. 1883.

THE claim of Attfield's popular chemistry for the patronage of physicians and students is based on the fact that the author excludes all matter relating to compounds, which only interest the scientific chemist; that he includes a description of the chemistry of all remedial agents; and finally, that the paragraphs are so cast that the volume may be used as a guide in studying chemistry experimentally. The author adopts, of course, the modern chemical nomenclature; he has dropped the use of the words potassa, soda, etc., and uses potassium, sodium, etc., instead. The metric system of weights and measures ("that which," says Dr. Attfield, "is destined to supersede all others") is used.

We believe that Attfield's chemistry, in its present edition, holds its own against the numerous rivals which are now appearing. It is probably as good a manual as can be made on the plan adopted. The plan will, however, in time be abandoned, we trust. It is at best but a make-shift to teach a man enough of chemistry to enable him to remember a little chemical physiology. Chemistry ought to be taught as a preliminary study, and taught thoroughly, without any pharmaceutical bias. Then the matriculated medical student can study clinical chemistry with interest, intelligence, and profit.

JAHRESBERICHTE ÜBER DIE FORTSCHRITTE DER ANATOMIE U. PHYSIOLOGIE. II. Abtheilung: Physiologie. 1 Halfte Herausgegeben von DR. FR. HOFMANN und DR. G. SCHWALBE. Literature. 1882. Leipzig: Verlag von F. C. W. Vogel. 1883.

THIS annual review contains the usual amount of bibliographical notices and abstracts. Too much space is occupied with the physiology of the sensory organs.

THE PHYSIOLOGICAL FACTOR IN DIAGNOSIS. A Work for Young Practitioners. By J. MILNER FOTHERGILL, M.D., Physician to the City of London Hospital for Diseases of the Chest, etc. New York: W. Wood & Co. 1883.

DR. FOTHERGILL'S latest work is a thoroughly characteristic production of that prolific writer. It is intended to guide the young doctor about to begin his practice. Among much that is of great practical utility in this connection we still find the evidence of hasty composition. The author is not always accurate in his scientific statements, and his work is, for this reason, not strictly reliable. However, as the volume before us is intended for those whose recent scientific acquirements will readily enable them to detect faults, no great harm will result from the author's method of rather loose statements. As regards the unscientific portion of the book, it consists of comments, suggestions, and stories that will, if taken to heart, certainly better qualify the doctor to treat patients than much that has been written in a strictly scientific way. The "Physiological Factor" is not always made very prominent, and indeed the volume had better been called "Hints in Beginning Practice."

THE PATHOLOGY, DIAGNOSIS, AND TREATMENT OF DISEASES OF WOMEN. By GRAILY HEWITT, M.D., London, F.R.C.P. Edited with notes and additions by HARRY MARION SIMS, M.D. 2 vols. 8vo. New York: Bermingham & Co. 1883.

As the fourth English edition, from which the work before us is an American reprint, is separated from its predecessor by an interval of eleven years, ample time has elapsed for the production of new matter and for change of old opinions and methods of procedure; and that such has been pre-eminently the case with gynecology no one acquainted with the history of medicine will undertake to deny. Of all of these advances and alterations Dr. Hewitt has taken due cognizance, so that the present edition is almost a new work. Much has been added and much rewritten, and seventy-nine new illustrations have been inserted. As the whole is characterized by the clearness, moderation, and thorough acquaintance with his subject which mark all of the writer's productions, the result is a work which must be looked upon as a standard of English opinion and method of the treatment of diseases of women at the present time. The chapters on flexions and hystero-neuroses will be found most interesting,

and while many physicians may be inclined to dissent from the purely mechanical views of the author, his opinions and researches will have a good effect in directing attention to the sexual organs as a possible cause in many cases of insanity and other nervous diseases.

The author has endeavored to write a book which should embody the latest condition of his specialty, and has well accomplished the object he had in view. We cannot say as much for the editor, as he seems to have forgotten his original intention, "to give the book the widest circulation possible," after having complied with the author's request that he would edit the work because he had known him from earliest boyhood. He has, apparently, soon lost sight of his original intention, and merely made use of his opportunity to introduce quotations from his father's works and sing his praises. Filial affection is a fine thing, but it should hardly be the leading motive in the editor of a scientific work; and while gynecology in general and American gynecology in particular are largely indebted to Dr. J. Marion Sims, still there are other American gynecologists of originality and merit—a fact that would not occur to the reader of the editor's notes.

The book is a creditable specimen of book-making, well bound and clearly printed on good paper; but for a book with cut edges, twenty-one square inches of printed matter on a page of forty-seven square inches are too much blank space with too small type.

Reports of Societies.

MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.

Stated Meeting, January 28, 1884.

S. O. VANDER POEL, M.D., LL.D., PRESIDENT, IN THE CHAIR.

THE CHARGE OF ATTEMPTED BRIBERY.

THE Comitia Minora, to whom was referred the charge of attempted bribery made by Dr. Isidor P. Oberndorfer at the annual meeting held October 22, 1883, reported that the charge had not been sustained by the evidence of the persons implicated in the accusation.

Unanimous consent was obtained, and the by-laws were suspended. The resignation of Drs. Samuel Sexton and John H. Ripley, as delegates to the Medical Society of the State of New York, were then read, and the Society elected, to fill the vacancies, Drs. W. Gill Wylie and Alfred L. Loomis.

DR. F. R. STURGIS then introduced the following resolutions:

Resolved, That the Medical Society of the County of New York is heartily in favor of and endorses the formation of a State Board of Examiners, before which all future candidates for the practice of medicine and surgery in this State must appear for examination, as embodied in the bill prepared by the Committee on Legislation of the Medical Society of the State of New York, and that it urge upon the Legislature the necessity for the speedy enactment of such a bill.

Resolved, That a copy of this resolution, bearing the signatures of the President and Secretary of this Society, be sent to each member of the Legislature from this county, and to the Chairman of the Committee on Public Health in the Assembly, and of the Committee on Miscellaneous Corporations in the Senate.

This gave rise to considerable discussion, and the following substitute was offered by Dr. Roosa, and unanimously adopted by the Society:

Resolved, That the Medical Society of the County of New York is in favor of the passage of a bill to establish a State Board of Examiners, who shall determine the qualifications for a license to practise medicine in this State.

Resolved, That this resolution be transmitted to the Legislature of the State, signed by the President and the Secretary.

DR. CHARLES HEITZMAN then addressed the Society on

THE LATEST RESEARCHES IN EMBRYOLOGY.

The following is an abstract of his remarks:

He first alluded to a recently published criticism of his book by S. Stricker, of Vienna, in which this most competent observer says that his doctrine so answers to the progress of histology that Stricker expects in the next ten years that it will be better than the older doctrine of the cellular state. In embryology the cell-doctrine, too, was rather an obstacle to a thorough understanding of the formation of the animal body.

The speaker next referred to the generally adopted ideas since Remak's times, according to which epithelial formations would be only the offspring of the two embryonal layers, the epiblast and hypoblast; whereas the development of the Wolfian bodies, and the assertion of a great many observers, that the mesoblast, the former of connective tissue and muscle, should be an offspring of either the epiblast or the hypoblast, or both, were contradictory to the exclusiveness of epithelial layers. The ovum as well as the spermatozoids are strictly epithelial formations, and nevertheless the whole organism is formed out of them. The idea of His, of an immigration of connective tissue elements into the ovum, is thoroughly hypothetical.

Dr. Heitzman referred to the discoveries of O. Hertwig and Fol, according to which the nucleus of the germinal vesicle takes active part in the segmentation, and the spermatozoid, being a nucleus-like formation, fuses together with the female nucleus. The result of segmentation was best studied by Coste, Oellacher, and Kolliker on the ovum of the chick; but an important fact was overlooked by all observers, viz., that the segmentation does not mean separation of the globules into so-called cells, for the great majority of them remain connected not only by an intervening cement-substance, but by delicate spokes of living matter, traversing the cement substance. Even after segmentation is far advanced, the majority of the newly formed elements remain interconnected, thus establishing the continuity of a tissue, in the sense of the new theory. A comparatively small number of segmentation-globules become separated from the main bulk of the germ, being enabled to change form and place; their ultimate fate, however, is not known.

In the fructified, unhatched ovum of the chick, as a rule, only two layers are discernible, the upper being of an epithelial nature, the epiblast, the lower being generally termed hypoblast. Many excellent observers claim that the mesoblast is an offspring of the epiblast. The recent researches of Kupfer and Benecke, of Königsberg, and of Karl Koller, of Vienna, the latter's more particularly, on the chicken-egg, have made it clear that the primitive trace, or primitive ledge, considered as the essential part of the mesoblast, originates excentrically at the boundary line, between the area pellucida and area opaca, in the shape of a sickle, whose anterior point grows into the area pellucida in a meridianal direction, being closely attached to the epiblast in the region of the sickle-furrow and the primitive furrow.

The reader's researches go to prove that the view of Götte, Disse, and Rauber are correct, according to which the sub-epithelial layer furnishes the mesoblast, and from this is separated, at the bottom of the blastoderm, a single layer of flat epithelia, the hypoblast proper. The original layer is not a mere aggregation of so-called cells, but a true myxomatous tissue, with light fields of basis-substance, in which the living matter, in the shape of a reticulum, remains discernible. The primitive trace,

though starting from the area opaca, the germinal dam of the authors, is, to a great measure, a formation of the lower layer of the blastoderm, which, from the condition of a myxomatous tissue, returns into the stage of embryonal tissue.

The epiblast unquestionably participates in the formation of the mesoblast, and so does, in all probability, also the hypoblast. But neither in the former nor in the latter is there at any time a separation into isolated elements.

The methods hitherto applied for embryological research were mainly the treatment with osmic and chromic acid solutions, with subsequent clearing in oil of cloves and mounting in Canada balsam. Specimens thus obtained never show the minute structure of the first-formed tissues. The reader adopted a method far more recommendable, viz., hardening in chromic acid solution, beginning with a 0.1 per cent. and advancing toward a 0.5 per cent. concentration. Imbedding should be done only in a solution of celluloidine in alcohol and ether, which saturates the delicate tissues and holds them together. Both the hardened celluloidine and the germ are cut simultaneously with a razor, or, preferably, with a section-cutter. The sections should be mounted in no other liquid but dilute glycerine.

Dr. E. C. Seguin referred to the advantages afforded by the celluloidine in the study of the delicate structures of the brain.

Dr. A. Jacobi asked Dr. Heitzman why he called the bodies outlined upon the blackboard elements and not cells?

Dr. Corning referred to what the study of embryology had done for the knowledge possessed to-day concerning the anatomy of the brain.

Dr. Heitzman closed the discussion with a brief account of his views concerning the formation of what are called cells and the basis-substance, which have already been laid before the readers of The Record.

The President announced the death of Dr. J. Wilhelm Frankl and Dr. James Moorhead. He then introtroduced Dr. W. Gill Wylie, who read a

MEMOIR OF THE LATE J. MARION SIMS, M.D., LL.D.,

in which he gave a sketch of his early history, his struggles at the beginning of his professional life, a graphic outline of his first experience in treating vesico-vaginal fistula, and a *résumé* of the obstacles which were encountered and overcome in establishing the Woman's Hospital, taken entirely from autobiographical notes which will soon be published. The memoir closed with a touching reference to the simple habits and the peculiar traits in Dr. Sims' character, as revealed to one who was most intimately associated with him for several years in private and hospital work.

The Society extended to Dr. Wylie a vote of thanks for his interesting memoir.

THE CAUSATION OF CROUPOUS PNEUMONIA.

Dr. A. Jacobi, Chairman of the Committee on Hygiene, read a communication which he had received from Dr. Seibert, of New York, in which the proposition was made to issue circulars, to be endorsed by the Committee on Hygiene, and to be sent throughout the country asking physicians to report with reference to the causation of croupous pneumonia, the expense to be defrayed by Dr. Seibert.

On motion, the Committee on Hygiene was authorized to issue such circulars.

The President said he was pleased to have Dr. Jacobi's endorsement of this plan of work, as he had recommended in his inaugural address that work of a similar kind be done among the members of the Society, and a committee had since been appointed to perfect plans by which it could be best carried on.

The Society then adjourned.

Correspondence.

OUR LONDON LETTER.

(From our Special Correspondent.)

THE DIRECT TREATMENT OF SPINAL CARIES—PROFESSOR STOKES ON NERVE-STRETCHING—ROYAL COLLEGE OF SURGEONS—ACTINOMYCOSIS.

London, January 12, 1884.

A very interesting paper was read by Mr. Frederick Treves at the last meeting of the Medico-Chirurgical Society (January 8th), on the direct treatment of spinal caries by operation. Mr. Treves remarked that the gravity of spinal caries is largely due to the depth and inaccessibility of the diseased area. The diseased bone cannot be removed and the morbid products have to travel a long distance to be evacuated. Immense purulent collections are thus induced, and these are usually opened at a point remote from the original seat of the disease. Mr. Treves proposes to reach the anterior surfaces of the bodies of the lumbar (and, with some reservation, last dorsal) vertebræ from the loin. A vertical incision is to be made close to the outer edge of the erector spinæ, the sheath of that muscle and the quadratus lumborum divided, the psoas muscle divided, and the vertebræ reached by continuing the operation along the deep aspect of that muscle. Mr. Treves claims that by this operation the vertebræ can be examined, diseased bone removed, and a ready exit given to all morbid products, a psoas or lumbar abscess opened while yet small and before a large abscess cavity has formed, while if a large abscess exist it can be evacuated at its point of origin and at a spot corresponding, in the recumbent posture, to its most dependent part. Mr. Treves has performed the operation in three cases, all of whom made a good recovery. The paper led to a very interesting discussion, in which many of the leading surgeons present took part.

Mr. Bryant congratulated Mr. Treves on his application of general surgical principles to spinal disease, but remarked that the operation was only likely to be successful for the removal of bone in a limited number of cases. Many abscesses originated independently of spinal caries and led to superficial caries by spreading to the bone. Such abscesses should be opened early and drained efficiently. Where the disease was in the intervertebral substance, no operation could remove the source of the suppuration, but even in such cases free and early drainage favored repair.

Mr. Noble Smith protested against the operation for cases of early caries, and spoke of the value of perfect rest as obtained by mechanical appliances.

Mr. C. Macnamara thought that in otherwise hopeless cases, where rest and counter-irritation had failed, Mr. Treves' operation would be of great advantage.

Mr. W. K. Treves thought the operation was applicable to cases of abscess in connection with spine disease, and not only to cases of caries of the spine, most of which ran their course without suppuration.

Mr. R. W. Parker thought the operation would be valuable for the letting out of pus, but as regarded the caries, it would be better not to interfere.

Mr. Savory considered that by no reasonable operation in this region could the parts be sufficiently exposed to be examined and treated.

Mr. Eve brought specimens showing that in nearly all cases the twelfth dorsal vertebra was affected, and as this could be reached by the proposed operation, these specimens at least supported Mr. Treves' practice.

In reply, Mr. Treves said that he was opposed to the indiscriminate removal of diseased bone. The main object of his paper was to detail an operation, by which the lumbar vertebræ could be reached and pus arising from bone disease be evacuated at its point of origin. Mr.

Bryant's remark that pus in contact with bone might cause erosion of the bone was a strong argument for opening a psoas abscess as soon as possible.

I recently forwarded you a brief account of Professor Marshall's Bradshawe lecture on nerve-stretching. Professor W. Stokes, of Dublin, has since reported two cases of locomotor ataxy, in which the sciatic nerve was stretched. In both cases considerable relief from pain followed the operation, although in one case severe pain at the site of the operation, with spasmodic contraction of the muscles of the legs, persisted for some hours. Professor Stokes considers a force of ten pounds sufficient for the sciatic nerve, and proposes to employ a dynamoter in future operations to estimate the force exerted.

At the quarterly meeting of the Council of the College of Surgeons of England, the second report of the committee on the mode of election to the Council and on other matters was presented and adopted. It is now proposed to allow voting by means of voting papers at the elections of councillors, thus taking the first step toward the removal of an old grievance which has been a bone of contention for years. As the matter has hitherto stood, country Fellows, residing at considerable distances from London, have practically been deprived of the power of voting by the rule requiring them to attend and vote in person.

Mr. F. Treves has at present under his care at the London Hospital, and exhibited at the Pathological Society, on January 4th, a case of actinomycosis which had been sent up to be under his care by Mr. W. K. Treves, of Margate. Poufick has described the disease in cows and horses, but no case has yet been reported in this country as occurring in mankind. Mr. Treves' patient was a man forty-six years of age. The disease began as a nodule on the left side of the neck and had spread downward over the left side of the chest. All stages of the disease were present, from minute solid growths to large suppurating and sloughing masses.

CONCERNING THE ADVICE GRATIS SYSTEM.

To the Editor of The Medical Record.

Sir: So much discussion has been carried on of late in relation to the question of out-door medical relief, and there has been evinced so much interest in the subject, that I think it well to trespass upon your time in order to lay before you the practical difficulties in the way of reform in this matter.

The question must be regarded: 1st, from the standpoint of philanthropy and political economy; 2d, from the standpoint of the poor; 3d, from a professional standpoint.

From the first point of view sickness must be regarded as a necessary evil, but one which hinders or destroys the usefulness of the individual to the community, and in the case of contagious or infectious disease is dangerous to others than the patient. The community has therefore a right to interfere to prevent or heal sickness. By its possible terminations in death or disablement, sickness tends to increase directly the amount of pauperism, and hence of crime. Therefore it is the duty of the community to reduce the amount of sickness and shorten its duration as best it may. For these reasons free dispensaries are necessary, and to a certain extent fulfil their objects. It is not, however, the right of a citizen who has means to obtain free medical relief. It is as dangerous, and tends as much to produce paupers, to give free medical advice to all comers as to give groceries. Therefore, as the present system does, to a certain extent, just this thing, the present system is wrong to just the extent in which it *gives* to those who can *pay* for advice. There is, however, one point which is not generally sufficiently considered: The sickness of the supporter of a family in many cases cuts off entirely and immediately the income of the family. Is it better that the savings of such a man should be devoted to payment for medical attendance, or should remain to pay for the expenses of the family until the laborer be restored to health? I speak of people with small incomes, say one dollar and a half to two dollars a day. Is one more likely to pauperize by treating patients free and letting them pay for their own necessities, or by making them pay for treatment and letting some one else give them their food and lodging? Any one familiar with the condition of many respectable families in New York will see at once how grave this question is.

The poor seem to regard the question as follows: Some seem to think that while they are well they can take care of themselves, but when ill, the wealthy must care for them; that they are not bound to make any provision against the time of sickness. Others again have so small an income that such provision is impossible. Still others naturally ask, why should we pay for what is held out to us on all sides free? Some think that while they can pay a small fee, the advice obtained for their money is worthless, and that they can get good advice at the dispensaries free.[1] With these it is a question of good advice for nothing or poor advice for money. Finally, there are some who would rather die than seek relief in the forms now held out to them.

The profession regard the question from various sides. The clinical teacher wishes material for his lectures and must get it as best he may. He might say that no one can deny the utility of clinical instruction; that the subdivision of material caused by the large number of free dispensaries compels him to take such patients as he can get, without inquiring too closely into their circumstances; that such an inquiry would be impossible. Some teachers may add with truth that they try to prevent people with means from receiving treatment at their clinics.

Physicians who are striving by hard work to earn a living from their practice complain that they are ruined by the system; that every free dispensary takes away numbers of their patients; that in the face of the sharp competition with men who receive pay for their services, they must also compete with institutions which indiscriminately give advice and medicine free.

The dispensary physician does his work in the main for two reasons: the experience, and a certain prominence given him by his position. Charity is not the reason for his labors. I speak as such a physician. I do not think that a dispensary physician desires to increase his classes at the expense of neighboring medical men; nevertheless dispensaries do take paying cases from such men. This shows beyond doubt that patients unfit for free treatment receive it. This is an evil much more serious to the community than to the profession, yet what shall be the remedy? We cannot close all dispensaries because their privileges are abused by a certain class of patients. We cannot refuse aid to the deserving for fear the undeserving should profit by our generosity. It is difficult to see how the problem can be solved. Feeble efforts are made in certain institutions to do away with the charitable element by making an absurdly small charge for advice. This is said to help the patients to retain their self-respect. Self-respect at one dollar a month is certainly cheap. This system, moreover, is bad because it discourages the very poor, those most deserving of medical charity, from applying, while it encourages people of fair means, those who should and can pay a moderate fee to a physician, to seek relief at public institutions. Inquiry into the condition of each applicant, while it would do much to diminish the evils complained of, is practically impossible. Even a comparatively small dispensary would require a large staff of trained, efficient, and honest visitors, who would be difficult to procure. Besides, where are we to draw the line between patients who can and cannot pay? The "provident" or "nu-

[1] This may or may not be the case. I do not say that dispensary physicians are better or worse than the bulk of the profession. This is no part of the discussion.

tual assurance" system, which works well in some parts of England, would be difficult of application here, owing to the very different social conditions which obtain. We cannot trust the poor to the private charity of individual physicians, I fear. Were the profession recruited from the ranks of angels, such a system might work. True, there is no class of men who do more quiet and unobtrusive charity than physicians, but for such work some form of organization is necessary. The suggestion made by one of your correspondents, that physicians who are injured by the present system should co-operate to do their own charity, hardly seems more than trying to diminish the evil to a certain number of medical men, by giving to themselves the advantages now held by others, and increasing still further the number of means whereby free relief may be obtained.

I have tried to look at the question fairly in all its bearings. I see no practical solution of it in New York at least. Perhaps some of your readers may be able to suggest some plan whereby the evils of the system may be reduced to a minimum and its efficiency continued. Of course, the first step toward its solution would be made much easier should all of the dispensaries act in concert. Any effort made by a single dispensary would probably be a failure. It seems to me that we do not want a reduction in the number of dispensaries, for the city is large and it is well to have many centres for relief distributed throughout its extent. We need some practical means of sifting the undeserving from the deserving applicants for relief. Can any one suggest such a means?

J. WEST ROOSEVELT, M. D.,

Attending Physician Roosevelt Hospital, Out-Patient Department.

56 WEST EIGHTEENTH STREET,
January 18, 1884.

THE SECOND EXAMINATION IN THE ARMY MEDICAL CORPS.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR: It has been brought to my notice that serious misapprehension exists as to the character of the "second examination" in the Army Medical Corps, or the examination for promotion, as it is designated in Army Regulations. In view of the fact that an article by Assistant-Surgeon R. W. Shufeldt, U.S.A., and published in your journal, has in a great degree caused this misconception, or has contributed to its extension, it has been thought best, with the approval of the Surgeon-General, to correct this, by giving in your columns an authentic and exact description of that examination as it is, and has been for the past twenty years conducted.

As the subscriber has been detailed as the presiding officer of every successive Examining Board for admission of candidates, and for promotion, since the death of Surgeon Tripler, in 1866, it cannot be questioned that he can speak from personal knowledge and experience. Every one of the present corps of assistant surgeons, and quite one-half of the surgeons-major, has been examined personally by him. No other member of the Medical Corps of the Army has had an experience which approaches this, except, perhaps, the late Surgeon Thomas G. Mower, U.S.A., of honored memory, in days long past. And as the subscriber was himself in those days examined by Surgeon Mower, he can speak also authoritatively as to the method then followed. He can assert, then, positively, that the general plan and scope of the first examination has not varied materially in over thirty years. This plan is fully set forth in the *Memorandum* for the information of candidates desiring to enter the Medical Corps of the Army, issued by the Hon. Secretary of War, and to be had by application to the Surgeon-General's office, or to the President of the Army Medical Examining Board now in session in this city.

The *second* examination, or examination for promotion, has been made rather more rigid than formerly, by successive instructions from the Surgeon-General's office, at various times during this same period—the late Surgeon-General Thomas Lawson, U.S.A., taking the first decided steps in this direction. A few other recommendations have been made from time to time, by different boards over which the subscriber has presided, at various intervals during the past fifteen years.

It was thought, until the publication of the article by Assistant Surgeon Shufeldt, that the general plan now followed in this examination was fully understood by the corps; but it seems from it that there is a misunderstanding, and that Dr. Shufeldt has, unintentionally, I doubt not, conveyed a wrong idea of the subjects embraced in it, as a rule, without stating the reasons why, in some special cases, subjects gone over in the first examination are sometimes introduced in the second, but never without having apprised the candidate that such would be the case. Briefly, then, as I do not want to trespass on your valuable space, the second examination is designed to test the fitness of the officer for promotion, by demonstrating whether he has kept pace with the progress of medical science during the five or more years he has been in service. An *abstract of the record of service* of the officer ordered for re-examination is in every case furnished the Board from the office of the Surgeon-General, and Professor Coues is perfectly correct in his statement that his *standing* is thoroughly understood by the Board before the examination is commenced. The examination is generally commenced by the president, who runs over the abstract of the officer's record of service, and inquires of him if he has regularly received his medical journals from the Surgeon-General's office, and if he has had opportunity to read them. He is asked if he has had any interesting or important surgical cases in the field or elsewhere—the details of operations, treatment, progress, results, etc., of some one or more of which *he* is requested to describe, and is questioned upon—scarcely ever in a set form of questions and answers, but as a simple professional conversation. He is asked to specify and describe any new operations, instruments, remedies, modes of treatment which have been introduced since his first examination, and his experience therein, if he has had any. He is asked a few questions as to surgical anatomy—a very few pertinent questions on these subjects will suffice to show the Board whether he has kept up these studies, and if he answers them satisfactorily the subject is not pursued. It is only from a manifest failure to do this, that this rule is departed from, or the examination prolonged. He is requested to relate some of his cases of obstetric practice, and disease of women and children. He is questioned more fully on matters of practical hygiene, his action in case of epidemics or infectious diseases approaching or present; his method of dealing with emergencies, and the sanitary recommendations he would, in certain specified cases, feel it his duty to make. *And this is all.*

In ordinary cases the subjects called "literary and scientific"—including physics and chemistry, which are in the first examination *preliminary* to the professional examination—are not touched at all in the second examination. In a few special cases it has been found that a candidate, while passing a most creditable examination upon all professional branches, has failed to reach the required standard in physics or chemistry; under such circumstances the candidate has been recommended qualified for appointment as assistant surgeon, but admonished that at his second examination—for promotion—he must make good these deficiencies, thus making his status a probationary one. In all such cases the subjects upon which he is to be re-examined are clearly specified.

As to the "Treatment of Science by the Military Method," your correspondent, Dr. Godfrey, of New Orleans, has most satisfactorily and effectually disposed of Professor Coues' strictures. A taste for natural science, or proficiency in some special branch thereof, is unques-

tionably a very desirable accomplishment for a medical officer, who may, under certain circumstances, have special opportunities for the pursuit of this study; but it cannot for a moment be entertained that it may be indulged in to the exclusion of the legitimate and essential requirements of his professional position. An army surgeon *must* "know a commanding officer," *must* "attend sick-call," and "see patients." If he becomes convinced that he is doing these duties in a "perfunctory way," he certainly should have the conscience to resign his commission, as Professor Coues, who so tried the "forbearance" of the Board, made haste to do. It requires much "audacious candor" to acknowledge that one in the Medical Corps of the Army "has never heard" of *Laennec and his little theory*, or does not know that persons suffering from glaucoma might be saved from total blindness by iridectomy! It did not require his "cheery reply" as to the "aspirator" to satisfy the Board that Dr. Coues was a proper person to recommend for promotion; but the "audacious candor" of his confessions since has taught the Board that their "forbearance" was mistaken, and they probably would not repeat the error of recommending him for promotion at once without requiring him to make up his deficiencies. Allowance *was* made in that case for a man who had distinguished himself, therefore the Board simply advised him of his deficiencies and did not suspend him.

Assistant Surgeon Shufeldt very correctly states the facts up to a certain point, and there his imagination runs away with him. He says: "A young man is found qualified and enters the Medical Corps of the Army. As the preparation for his entrance examination has no doubt been trying, the first impulse after becoming accustomed to the novelty of freedom he at first experiences is to rest for a month or two, then follows a reading of the journals, so generously furnished by the Surgeon-General's office; then, a taking up again of his old text-books as cases commence to present themselves." The rest of his fancy picture is uncalled for. The "young man" has only to continue in the course above specified to become fully qualified to answer any questions that will be asked at his second examination without "special preparation." If he has been admonished to make good any deficiencies, these have been *clearly specified*, and he knows just what they are. No other "special preparation" is necessary, and if the young medical officer takes interest in his duties and reads the journals and text-books "so generously furnished," it is difficult to understand why there should be any "dread" of the second examination. Such can only be present in cases of conscious neglect. We have been told that certain persons under certain circumstances have no "good opinion of the law." Conscious neglect of daily opportunities can only render it necessary to "spend three or four months" before the second examination, "in cramming to prepare for it." "Naturally," the "unanimous verdict" in such cases will be that the system "*is a bad one.*"

An extended inquiry among the members of the corps shows that there is little question as to the propriety and necessity of this second examination. Somebody or organization must have the duty of determining the fitness for promotion, and it is assigned by law to the Examining Board, which may, in some cases, have imposed the special condition that certain original deficiencies must be made good. The high standard attained by the Army and Navy Medical Corps is the best evidence of the excellence of this system. It certainly has not proved practically to be the "perfect break to professional progress and excellence" so pathetically pictured by Dr. Schufeldt. On the contrary, it is undeniable that the stimulus of looking forward to this second examination, for the first five years of service, has confirmed many a "young man" in his habits of study, who might otherwise have degenerated into a sutler's store lounger.

JOSEPH B. BROWN,
Lieutenant-Colonel, Surgeon U. S. A.

Navy News.

Official List of Changes in the Medical Corps of the Navy, for the week ending January 26, 1884.

ANDERSON, F., Passed Assistant Surgeon. Granted leave of absence for six months.

FILTS, H. B., Assistant Surgeon. Detached from the Jamestown and ordered to the Coast Survey Steamer Gedney.

WHITING, ROBERT, Passed Assistant Surgeon. Detached from the Hospital, Norfolk, Va., and ordered to the Colorado.

Official List of Changes of Stations and Duties of Medical Officers of the United States Marine Hospital Service, from October 1, 1883, to December 30, 1883.

BAILHACHE, P. H., Surgeon. Relieved from duty at Cape Charles Quarantine Station, October 13, 1883. Detailed as member of Board to examine candidate for promotion, October 30, 1883. Granted leave of absence for thirty days, November 27, 1883.

HUTTON, W. H. H., Surgeon. Granted leave of absence for twenty days, October 1, 1883.

WYMAN, WALTER, Surgeon. Detailed as member of Board to examine candidate for promotion, October 30, 1883. To proceed to Norfolk, Va., to investigate the conduct of the Service at that port, December 31, 1883.

LONG, W. H., Surgeon. Leave of absence extended ten days, October 26, 1883.

MURRAY, R. D., Surgeon. To proceed to Ship Island Quarantine Station, October 17, 1883. To inspect sites for quarantine stations, November 30, 1883. Granted leave of absence for twenty days, December 18, 1883.

SMITH, HENRY, Surgeon. Granted leave of absence for twenty-five days on account of sickness, October 13, 1883. Relieved from duty at Norfolk, Va., October 17, 1883. To report to Surgeon Sawtelle, at New York, for temporary duty, November 27, 1883. Relieved from temporary duty at New York, and placed on waiting orders, December 31, 1883.

FISHER, J. C., Passed Assistant Surgeon. When relieved by Assistant Surgeon Banks to proceed to New York for duty, October 29, 1883. Granted leave of absence for thirty days, November 28, 1883.

GOLDSBOROUGH, C. B., Passed Assistant Surgeon. Granted leave of absence for thirty-two days on account of sickness, October 12, October 20, and November 1, 1883.

IRWIN, FAIRFAX, Passed Assistant Surgeon. To proceed to Norfolk, Va., and assume charge of the Service, relieving Assistant Surgeon Glennan, October 16, 1883.

MEAD, F. W., Passed Assistant Surgeon. To proceed to Portland, Oregon, inspect the Service, and report the condition of Assistant Surgeon Devan, December 5, 1883. To return to station, Port Townsend, Wash. Ter., December 18, 1883.

COOKE, H. P., Passed Assistant Surgeon. To proceed to Charleston, S. C., for duty, November 27, 1883.

BANKS, C. E., Assistant Surgeon. Detailed for temporary duty at Georgetown, D. C., October 11, 1883. Granted leave of absence for thirty days, October 12, 1883.

BENNETT, P. H., Assistant Surgeon. Placed on waiting orders, December 15, 1883. Granted leave of absence for thirty days, December 22, 1883. Upon expiration of leave of absence to proceed to Detroit, Mich., for duty, December 29, 1883.

PECKHAM, C. T., Assistant Surgeon. To proceed to Wilmington, N. C., and assume charge of the Service, relieving Passed Assistant Surgeon Irwin, October 16, 1883.

DEVAN, S. C., Assistant Surgeon. Granted leave of absence for ninety-five days, on account of injury, and sickness resulting therefrom, November 15, December 5 and 22, 1883.

BEYAN, A. D., Assistant Surgeon. To proceed to Portland, Oregon, and assume charge of the Service, December 29, 1883.

GLENNAN, A. H., Assistant Surgeon. To proceed to New Orleans, La., for duty, October 17, 1883.

WASDIN, EUGENE, Assistant Surgeon. To proceed to Mobile, Ala., for temporary duty, October 11, 1883. To proceed to Galveston, Texas, for temporary duty, November 17, 1883.

BENSON, J. A., Passed Assistant Surgeon. Promoted and appointed Passed Assistant Surgeon, by the Secretary of the Treasury, from October 1, 1883. October 4, 1883.

BANKS, C. E., Passed Assistant Surgeon. Promoted and appointed Passed Assistant Surgeon, by the Secretary of the Treasury, from November 1, 1883. November 6, 1883.

Medical Items.

CONTAGIOUS DISEASES—WEEKLY STATEMENT.—Report of cases and deaths from contagious diseases reported to the Sanitary Bureau, Health Department, for the week ending January 26, 1884:

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever
Cases.								
January 19, 1884.....	3	9	84	4	43	40	0	1
January 26, 1884.....	0	4	81	7	43	41	0	0
Deaths.								
January 19, 1884.....	0	3	17	4	5	18	0	1
January 26, 1884.....	1	4	10	4	9	21	0	0

CONVALLARIA MAJALIS.—Dr. Squibb believes that the fluid extract of the root of this plant is the best preparation, and that it is a drug whose action as a heart tonic is somewhat different from that of digitalis. Dr. Squibb does not seem to be aware of the elaborate studies of Schmiedeberg and others upon this point.

THE SHROUD.—The undertakers have their trade journal too. It is called *The Shroud*, is in its third year, and appears prosperous. The end which it serves apparently justifies the means.

A GRAVE SUGGESTION.—The notice of an operation at a surgical clinic, in beautiful writing, carefully tacked upon the clapboards of an undertaker's office near a large metropolitan hospital, is an offset for an undertaker's sign which read, "All requisites for a first-class funeral furnished." ["All the Year Round," Act I., Scene 1.]

THE ANTIQUITY OF THE USE OF CONVALLARIA MAJALIS AS A MEDICINE.—Dr. Edward Drummond, of Rome, writes to *The British Medical Journal* (see No. 1194, November 17, 1883, p. 970), that he has lately met with an account of the use of this drug in cardiac disease, as far back as the commencement of the seventeenth century, in an old Italian book of "Commentaries on the Materia Medica of Discorides," by Dr. Pietro Andrea Matthioli, published in Venice in 1621, and Dr. Drummond gives the following interesting translation: "The Germans use lily of the valley to strengthen the heart, the brain, and the spiritual parts, and also give it in palpitation, vertigo, epilepsy, and apoplexy; also as a remedy for the bites and stings of poisonous animals, to quicken parturition, and for inflammations of the eyes. For this purpose they are wont to prepare the wine from the flowers at the time of the vintage, and then infuse them in old wine for forty days in the sun, and subsequently distil and re-distil (but not many times), along with lavender-flowers, rosemary, and other aromatics. They then preserve it as one of the most precious things to be found amongst medicines, and they call it 'aqua aurea,' and preserve it, in vessels of gold and silver, against sudden attacks. They even believe that given to persons actually *in articulo mortis* it is able to prolong life for several hours. In this, however, they are not unfrequently deceived, as I have myself witnessed."

HOSPITAL AT MOBILE, ALA.—It appears that the faculty of the Mobile Medical College have control of this hospital. They have addressed a circular to the profession—but which goes, of course, to the people—in which they offer to treat gratuitously all kinds of general and special diseases. This is, of course, in spirit, if not in act, a violation of the Code of Ethics, but as the same course is adopted by almost every medical college faculty, it is difficult to see how the abuse can be checked and the representatives of it held to a just and proper accountability to the profession. There can be no question as to the unavoidable results of such a course; firstly, what physicians, as organized bodies, are now culpably doing with perfect impunity will be soon done by individuals also; and secondly, as this great abuse of gratuituous services given to the public is more general and more diffused, so will paid service become less and less, and the profession be grievously impoverished. In Philadelphia twenty per cent. of the professional work done is given without charge to the public, and so much money is withdrawn from the profession. It is a very great, growing, and dangerous evil. Medical societies must deal with it, and deal with it promptly and fully.—*Gaillard's Medical Journal.*

"THE SUMMARY," a journal of medical news published in Lansdowne, Pa., presents holiday attractions in its December number. Its first page details appropriate treatment for a case of "Bilious Pleurisy, or Pleuro-Pneumonia." Further on leucorrhœa is treated by a sponge-tent inserted into the vagina. The author uses a "speculum which is like an old-fashioned candlestick," but "hopes to see a common-sense speculum in the near future." This is not all. The mechanism of the circulation of the blood is treated of, and in the following words: "We are taught by Dunglison and others that the heart circulates the blood. I cannot conceive how the heart has any inherent power in itself to force twenty-five pounds of blood, more or less, through itself in the course of a few seconds, but I can comprehend how the blood may make its revolution through the heart and system in the time specified by electric action, positive and negative, upon the principle of attraction and repulsion."

THE RELATIONS IN WHICH MEDICAL MEN STAND TO THE LAW.—Dr. Charles G. Garrison, in reporting to the Camden County Medical Society (*Medical Bulletin*), summarizes the relations of physicians to the law under three heads: "1. As a plaintiff: There is nothing in the profession peculiar to the physician. A 'visit' *per se* is not a valuable consideration, and therefore not a lawful demand. 'A professional visit, at the request of defendant,' is recommended as a proper form. The defence that he did not cure or benefit defendant is no bar to recovery, as skill and care, not cure or benefit, are the conditions of the implied contract. 2. As a defendant: The law presumes that a physician agrees to furnish the fair average skill of the craft, not the highest known to the profession. 3. As a witness: This may be ordinary or expert. The ordinary witness testifies only in regard to what he saw, heard, or observed in the case, the same as any other witness. As expert, the position of the physician is judicial, and he should be called by the court, and not by the contestants.''

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Original Lectures.

ON THE METHODS OF STUDYING THE BRAIN.

THE CARTWRIGHT LECTURES, DELIVERED BEFORE THE ALUMNI ASSOCIATION OF THE COLLEGE OF PHYSICIANS AND SURGEONS, NEW YORK, FEBRUARY 2, 4, AND 6, 1884.

BY BURT G. WILDER, M.D.,

PROFESSOR OF PHYSIOLOGY, COMPARATIVE ANATOMY, AND ZOÖLOGY IN CORNELL UNIVERSITY, AND OF PHYSIOLOGY IN THE MEDICAL SCHOOL OF MAINE.

LECTURE I.

LIMITATION OF THE SUBJECT TO MACROSCOPIC ENCEPHALIC MORPHOLOGY—METHODS OF REGARDING THE BRAIN BASED UPON ITS CONDITION IN EMBRYOS AND IN AMPHIBIA.

Mr. President, Ladies, and Gentlemen: In fulfilling my acceptance of your invitation to deliver the lectures upon the Cartwright foundation this year, I desire to express my wish that such testamentary provisions may be multiplied, my pleasure in addressing an Alumni Association which includes so many of my former pupils, and the sense of mingled eagerness and hesitation with which I speak upon the brain in a city which has a Neurological Society and is the meeting-place of the National Association.

The facts and considerations to be laid before you are exclusively morphological: Comparative anatomy, general zoölogy, and embryology have place only, in so far as they elucidate human anatomy and histology, physiology, pathology, and psychology are omitted altogether.

These latter methods of regarding the brain, it is true, immediately subserve the ultimate purpose of the physician to recognize the nature and causes of encephalic disorder, to anticipate results, and to avert such as may be undesired; but surely it is equally true that microscopical, experimental, pathological, and psychological observations and discussions are more reliable and fruitful when based upon that living knowledge of the visible constitution of the organ concerned, which is to be gained only through prolonged personal and familiar acquaintance.

The title of these lectures should read as follows: Outlines and Illustrations of Some Methods of Regarding, Obtaining, Preserving, Examining, Figuring, and Describing the Brains of Certain Amphibia and Mammalia, which have proved useful in the anatomical laboratory of Cornell University, which appear to be unfamiliar to many physicians, and which it is hoped may aid them in acquiring, retaining, and imparting clear, real, and accurate knowledge of the normal, macroscopic structure of the human brain.

The methods above indicated fall naturally into three categories, mental, manual, and verbal, involving, respectively, the recognition of ideas, the performance of manipulations, and the employment of terms. I shall first offer some general propositions which, in a somewhat extended experience, I have found to facilitate the comprehension of the brain as a whole. Then I shall describe certain ways and means of normal encephalotomy. At the closing lecture, in illustration of the results of these methods, I shall ask your attention to features of the brain which are not infrequently overlooked or misunderstood; and finally submit to you some considerations respecting the employment of certain terms of description and designation which are not in common use.

Consider a human brain. Variously viewed, it consists of two, four, six, or more than one hundred parts visible to the unaided eye. A congeries of comparatively simple cells and fibres, yet in action how unlike ligament and connective tissue. Soft, yet moulding the skull upon itself. Confined within the head, yet well-nigh omniscient and omnipotent throughout the body. At once the ruler and the servant of all other organs. A mass of matter, yet ministering directly to mind. Who can fitly describe it? Who can hope to comprehend it? No wonder that so few truly wise and candid men pretend to really understand the brain.

Before suggesting the means by which the hopelessness of this task may be diminished, permit me to comment briefly upon some methods of regarding the brain which, so far as I can judge from standard text-books, and other sources of information, are not altogether unknown at the average English and American medical college:

1. The brain is regarded as a fibro-cellular mass, penetrated here and there by inconsiderable cavities.

2. Now that these cavities are no longer supposed to be the "reservoirs of animal spirits," or the "receptacles of the excrements which are separated in the nourishment of the organ," all use and significance seems to be denied them.

3. Little attention is paid to the membranes which line these cavities and invest the entire organ.

4. For lack of a clear recognition of the nature of the cavities, there is commonly enumerated therewith a space between two apposed ectal surfaces, the so-called "fifth ventricle," which forms no part of the series, either actually or ideally.

5. On account of its slenderness in man and the higher mammals, one of the primary divisions of the cavity is described as a mere passage of communication, and a like rank is assigned to a division of which the cerebral hemispheres themselves are only diverticula.

6. The fascinations of microscopical *technique*, the exclusion of the brain from ordinary surgical interference, the difficulty of obtaining the organ in a condition suitable for dissection, and, finally, the not unnatural tendency of writers and teachers to ignore the necessity for more information than they themselves possess, have led to an undue curtailment of the time given to the gross anatomy of the brain. It is, indeed, beyond the range of possibility that a student should be permitted to imagine himself possessed of some knowledge of encephalic anatomy because he can discriminate between *corpus callosum* and *corpus striatum*, or between optic lobe and optic thalamus; or even when he can merely repeat a string of sonorous names, notwithstanding, like the "peripatetic professors of phrenology," mentioned by Ecker, he has "never seen a brain"—seen it, that is, in the sense of having personally and thoroughly dissected it in a fresh or well-preserved condition.

7. The more obvious features of the larger masses are described and figured in detail, while certain lesser points are inadequately discussed or ignored altogether.

8. The morphological significance of some of these slighter features is so little appreciated, that the descrip-

tion of an orifice in the "*lamina cinerea*," or the representation of the "third ventricle" without a roof, excites no more surprise than would the enumeration of a larger or smaller number of foramina in the "anterior perforated space."

9. Usually the adult human brain is the first and only object of examination, and is taken as the standard of comparison; if animal brains are studied at all, they are often taken as they come, or as anatomical rarities, not selected in accordance with a principle which might indicate the probable degree of their usefulness.

10. The development of the brain is treated only as a division of embryology, and as such is apt to be overlooked until after the time when it might be most useful in aiding the comprehension of the organ.

11. Most anthropotomical accounts of the development of the brain are wellnigh unintelligible to any but the learned anatomist by reason of their brevity, the introduction of elaborate figures, the slight use of diagrams, the attempt to describe or represent at once all the kinds of changes which affect all parts of the organ, and, finally, by the employment of terms differing in character, or at least in form, from those which occur in the account of the adult brain.

12. A few parts have been named from real or fancied resemblances to other portions of the body or to various objects, but the organ as a whole has been treated as if beyond the pale of analogy and literally incomparable.

13. The visible parts, nearly two hundred in number, are mentioned in descriptive anatomy only in their topographical sequence, and the student is expected to master the details presented by the base of the organ, including the nerve-roots, or on a mesial hemisection, or on transections at various levels, with little or no intimation that the parts thus exposed together belong to quite different divisions.

14. The brain has been variously and incongruously subdivided into two, three, or more parts, with apparently no reference to any underlying plan of organization.

15. With some other complex organs, the effort has been made, more or less successfully, to reduce them to their simplest terms; to recognize in each a structural unit which is reproduced with variation throughout the whole. The liver, for example, is a mass of essentially similar lobules, and the lungs consist of innumerable thin-walled sacs, each surrounded by a capillary network.

16. As to the brain, histologically it is said to consist of cells and fibres, and physiologically of ganglia and nerves, or centres and conductors, or "stations" and "projection systems," but the conception of a *macroscopic encephalic unit* seems not to have been commonly entertained. Moreover, although a segmental constitution of the brain has been more or less distinctly outlined in special papers and in the embryological portions of anatomical compendiums, the encephalic masses have been discussed to the nearly complete exclusion of the cavities.

17. The chief obstacle to the early and clear recognition of the simple character of the encephalic unit has been the enormous development of the cerebral hemispheres in man and the higher mammals, and the relative insignificance of the mesial part by which they are connected. Hence has arisen the idea of encephalic duplicity—an idea which is supported by the pairs of lateral masses called *thalami*, by the pairs of lateral eminences called *lobi optici*, and especially by the peculiar physiological relations of the two halves of the entire brain with the right and left sides of the body. Thus has it come about, paradoxical as it sounds, that the hindrance to the progress of the philosophical anatomy of the brain has been occasioned mainly by the peculiarities of the very region through which alone philosophy has arisen.

The methods of regarding the brain which have been employed in research and instruction in the anatomical laboratory and lecture-room of Cornell University during the last seven years have been evolved from the study of the organ chiefly as it exists in Embryos, in the Frog and *Necturus*, and in the domestic cat.

I have to acknowledge indebtedness to two sources—the description and diagrams of the typical brain in Huxley's "Anatomy of Vertebrated Animals," and the tabular arrangement of the encephalic names in the eighth edition of Quain's "Anatomy."

The most general statement of the methods recommended may be made in the form of six propositions:

A. The comprehension of the macroscopic morphology of the brain involves the removal of difficulties varying in kind and degree. These several categories of difficulties should be attacked separately, and in the order of (1) their fundamental importance and (2) their simplicity.

B. The arrangements of the solid parts of the brain are more readily perceived and more easily remembered after the relations of the cavities are fully understood.

C. An adequate idea of the circumscription of the cavities involves a distinct recognition of their lining and of the investment of the whole brain.

D. Even when the adult human brain is the ultimate object of inquiry, its detailed study should be preceded, rather than followed, by the examination of embryonic and certain animal brains.

E. The arrangements of the encephalic parietes are more readily appreciated if we disregard altogether their organic composition and their direct subservience to mental operations, and view the brain primarily as we might any artificial structure, like a house or a piece of furniture of homogeneous material.

F. In the attempt to comprehend or explain the various complications of encephalic architecture, by the comparison of the brains of different animals, or at various stages of individual development (ontogenesis), or as hypothetically involved, in geological time (phylogenesis), diagrams should largely take the place of descriptions, even although we may be compelled, provisionally, to assume a knowledge of intermediate steps which may not have been actually observed.

A primary wish of the intelligent student of a complex structure is for a definition which is at once correct, clear, and comprehensive—the concise expression of the most general conception of its constant and essential characters.

Excluding the lowest three genera—*Branchiostoma* or amphioxus, *Myxine*, and *Bdellostoma*—the most general macroscopic morphological features of the vertebrate brain are as follows: 1, it is elongated; 2, it is hollow; 3, it is constricted at several points; 4, it is the cephalic continuation of the myelon.

Combining these, we have the following macro-morphological definition of the brain: A segmented, entocranial tube.

The recognition of the segmental constitution of the brain does not involve either of the following matters: (*a*) the precise number of segments; (*b*) the identity of their development; (*c*) the physiological identity of an entire segment; (*d*) the absolute physiological distinction between two segments.

The cavity of each segment is primarily and essentially a short, subspherical cylinder, open at either end, excepting the cephalic end of the last.

The primary segmental cavities constitute a single mesial series, but from several of them are produced lateral diverticula.

These diverticula may be formed, by budding, at a very early period, as, *e.g.*, the *optic vesicles*; or later, as is probably the case with the so-called *optic ventricles* of frogs and birds. The lumina may persist through life, as in the latter instance; or be obliterated, as in the former, where they form the *optic tracts*. In both cases they are comparatively simple in form, and in some animals (*Necturus*, *Petromyzon*, etc.) this is true also with

the most cephalic diverticula, which become the cerebral hemispheres and *lobi olfactorii*. In man, however, and the mammals generally, the cerebral diverticula become disproportionately large; their cavities, the so-called "lateral ventricles," are very irregular in form, and so much more extensive than the primitive mesial cavity from which they sprung that the latter is sometimes overlooked altogether.

But it must be borne in mind that in frogs and birds the lateral masses and cavities constituting the optic lobes are also both large and complicated. Indeed, prejudice aside, they might well be designated as "hemispheres" and "cornua." Whatever may be the actual directions of these diverticula, all should be reduced to one normal position, extending laterally at right angles with the mesial line representing the primary cœlian series.

The simplest representation of the encephalic unit is as a single thin-walled cavity, as it is in the early embryonic stages. Secondly, and in accordance with some facts of comparative anatomy, but still from the purely macro-morphological standpoint, there are three communicating cavities—one mesial and two lateral. Finally, the cavities are practically obliterated, and, from the histologico-physiological standpoint, we have two lateral masses conjoined by transverse commissures. In more concise verbal form, the embryological idea of the brain is unity, the morphological idea is triplicity, while the physiological idea is duplicity.

The cavities of normal adult mammalian brains are comparatively atelic, and hardly more than traces of what existed in their own early stages and presumably in the remote ancestors of mammals, as in the amphibia of the present day. Hydrocephalus is the retention or exaggeration of this normal embryonic condition, and brains thus affected, if properly preserved and examined, may very clearly illustrate the manner of circumscription of he cavities.

In the brain, as in other regions of the body, the teleological importance of a part may be no index of its morphological significance, and may even be inversely thereto.

In addition to the usefulness of a knowledge of the relations of the cavities in facilitating a comprehension of the plan of the brain, their location is very nearly a guide to the distribution of the ganglionic centres and the course of the fibrous conductors and channels of blood-supply. Intrusions of vascular plexuses occur at various points, but the larger vessels rarely invade the cavities. Only in the mammals, and perhaps not in all of them, is the cœlian privacy disturbed by that most unsubstantial union of the two thalami known as the "soft commissure." Moreover, excepting the commissure just named, and the *callosum* and the filmy mesial line of the *fornix*, there are few if any "short cuts" in the brain. Contiguity is thus no evidence of continuity; the human *pons* and the *chiasma* are almost in contact, but their fibres ascend in distinct segments. The occipital lobes of the cerebrum overlap the cerebellum, yet are but remotely connected therewith. The temporal end of the fimbria passes within three centimetres of the corresponding *albicans*, but the shortest route between them follows the circuitous spiral of the cornu through a distance five times as great.

After the complete closure of the encephalic region of the embryonic neural canal, the presumption is that the cavity so formed is completely surrounded, and that the parietes are continuous. The burden of proof should therefore rest with those who affirm the existence of orifices or other interruptions of this continuity. The alleged "Foramina of Magendie" will be referred to later; elsewhere than in the roof of the so-called "fourth ventricle" there is no sufficient evidence of any solution of parietal continuity, and the plexuses which apparently enter the cavities may be shown, readily and without the aid of the microscope, to be related thereto only as the abdominal viscera are related to the cavity of the perioneum.

The animal brains examined by the medical anatomist as an aid to the comprehension of the general arrangement of the organ should be chosen because either (*a*) they are simpler than the human brain and are readily comparable; or (*b*) they are obtainable promptly and in sufficient numbers; or (*c*) the animals lie in or near the presumed line of human ancestry.

The resemblance between the brains of early human and shark embryos is simply startling, and a fuller knowledge of the brains of *Petromyzon*, *Ceratodus*, *Protopterus*, and *Lepidosiren* will certainly aid in clearing up the relations of the mesial and lateral divisions of the most cephalic segment; but there are obvious practical obstacles to the general employment of these forms. In common with others, I have been forced to entertain the doubt as to whether (*a*) man is the highest mammal, and (*b*) the human body is now as perfect, anatomically and physiologically, as it may reasonably be expected to become if the natural laws of the past are to operate likewise in the future.[1]

The reptiles are probably, and the birds most certainly, out of the direct line of human descent, and their brains are thus of use only to the advanced neurologist in throwing certain side-lights.

As to the mammals, the brains of the lower and smaller forms—opossum, rabbit, etc., with their less developed cerebrum and cerebellum, fornix and callosum—present obvious advantages in the way of simplicity; those of the higher and larger forms—cats, dogs, sheep, monkeys, etc.—are more useful as supplying the material for dissection when human brains cannot be had, while those of the pig can be obtained in all stages of development, as has been so well illustrated in the work upon human physiology by the distinguished professor from whom many of my hearers have gained their knowledge of that science.

The remaining vertebrate class, the amphibia, including the frogs, toads, and salamanders, fulfils, as a whole all four of the conditions named above. The advantages presented by the frog's brain have been admirably described by Wyman, and may be more categorically stated as follows:

1. The various parts, while far from equal in size, differ much less than in the higher vertebrates. 2. No part is completely hidden by another. 3. All lie in the same plane. 4. The cavities are relatively large. 5. The parietes vary little in thickness. 6. While all the primary components of the brain are present, there are but few special additions or modifications to distract attention from the general plan. 7. There are three "optic ventricles" or divisions of the mesocele—one mesial and two lateral, as in birds.

In view of all these excellences and the very obvious advantages for general dissection afforded by a creature which is readily obtainable and wholly inoffensive, whose tissues are coarse, and whose organs are readily separable, the very skin being, as it were, only "basted on," to criticise the frog as a subject of elementary anatomical study is to deride a laboratory fetich. Nevertheless for beginners the frog's brain is objectionable, because (*a*) the plexuses are almost wholly wanting; (*b*) in common with the other Anura, there is, in the adult, a close conjunction of the *lobi olfactorii* which is anomalous and misleading. I say misleading, because it not only puzzles the beginner, but also, inasmuch as the hemispheres remain separate, there is formed a sort of nervous ring; and even the late Jeffries Wyman, who made so few mistakes in observation and interpretation as to merit the title of the anatomical George Washington, compared it with the œsophageal ring of some invertebrates. In view of these considerations, would it not be well to disconnect the olfactory lobes when a frog's brain is first

[1] The physician who has lost a patient in consequence of the lodgement of a grape-seed or other natural constituent of wholesome food in the *appendix vermiformis*, may endeavor to reconcile the calamity with popular belief, but will more probably look forward to the period when this worse than "worthless primeval heirloom," will have ceased to be an element of human structure.

examined, and should not more frequent and systematic use be made of the large salamander *Necturus* already mentioned?

But even the *Necturus* brain has its drawbacks, and it must be admitted that a great desideratum of the teacher and student of encephalic morphology is a brain constructed on the general pattern of that of *Necturus*, but with the firm texture and more distinct cerebellum of the frog, and at least as large as the brain of the giant Megalobatrachus of Japan.

THE RECIPROCAL ATTITUDE OF THE MEDICAL PROFESSION AND THE COMMUNITY.[1]

By ALEXANDER HUTCHINS, A.M., M.D.,

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THERE is a medical science, but if medicine were a science only there would be fewer medical schools than now exist.

The former part of this proposition has been flatly denied. The impression is prevalent that while much learning has been amassed in medical research, the conclusions are so untrustworthy as a basis for future observers, that, in the catalogue of the sciences, medicine is to be classed among the empirical, and not in the exact.

Although the scope of intellectual activity has varied, there have been scholars in all ages, and in each era the lines have been sharply drawn between those who have wrought into new forms truth that has been revealed, and those who have labored in the discovery of truth to which the world had, hitherto, been a stranger. The scope of the sciences has been enlarged; investigation has developed an orderly arrangement of facts and principles, and this classified knowledge, in any special line, must be elevated into the rank of the sciences.

Human anatomy is a science, and, in its orderly classification of structure and relation, was a science long before the dependent science of histology unravelled the closely woven web that held so many mysteries in its fast embrace; before physiological science lifted the veil and disclosed the inevitable necessities of related structure; before chemical science touched with her magic wand the sealed volume where lay inscribed the hidden processes of waste and repair; before pathological science began her study of the myriad variations from the ideal type of structure, and of the utmost bounds where the interrupted harmony of process becomes discord, beyond which is dissolution; before the science of embryology all but touched the confines where the creative force starts the complex human mechanism in its infinite reproduction; before comparative science demonstrated the unity of animal organism; before biological science grouped all living organization, to make clear the intimate similarity that exists in all structures infused with the element called life.

Medical science assumed her unique place among the sciences when the facts and phenomena, evoked by biological research, were made the basis of investigation, whose purpose is to prolong the vital process and arrest the untoward influences that perpetually threaten its extinction. This is her distinctive mission. Though some names are inseparably connected with the beginning of certain movements that have become classic, the body of medical science is the slow accretion of the centuries, and the contributions to its learning are too numerous for the historic pen. The results of yesterday are the alphabet of to-day. The unproven is rapidly discarded, the good is improved upon and becomes common property. By the very genius of the science this history of progress and change must always be repeating. The days rapidly hasten on when the names of McDowell and Von Graefe, of Keith and Sims will be prominent only as landmarks.

The discoveries made by Jenner, Ehrenburg, Dujardin, Schwann, Pasteur, Lister, Koch, Lacerda, Ziehl, Eschbaum, Klein, Leyden, and others, increase rather than remove our doubts as to what lies beyond; but their far-reaching results are the product of the present decade of investigation, and we stand but at the threshold of these directions of biological research.

The attitude of the community toward scientific study is, primarily, that of antagonism. There are many years, but one sentiment, between the persecution of Galileo and the onslaught on vivisection; 1616 has somewhat of kinship with 1884. Popular government has never initiated any movement to promote research, for that implies a cultivated sentiment among the voters, and the English-speaking nations have done almost nothing in the way of State appropriations for scientific study. Germany, France, Russia, Holland, Belgium, and Italy are, almost exclusively, the originators of the later methods. The most that has been done in England and the United States has been done by those men whose capacity for scientific discovery has been accompanied by the possession of private fortune; the remainder has come from work incidental to the occupation of professional chairs.

In this country neither the nation nor, to my knowledge, any State has done the first thing to further scientific research directly. Much has been done for industrial education, and a great deal of research is really carried on under cover of State and government appropriations, but all is of secondary moment to the powers that be.

Scarcely any provision has been made until recently for biological science in our institutions of learning, beyond elementary instruction. But these facts do not prove the basis of complaint. The scholars must always be the select few. The bacillus of malarial fever might hollow out the historic niche for its discoverer, though the discovery would not sell for a dime.

The cultus of medical science must continue to share the experience of all original investigation, and remain a personal factor among the diverse directions of human industry. They who cull the flowers, enjoy the fruit, reap the harvest, or sell the crop, are of different mind and other station than they who till the ground, plant the seed, nurture the sapling, and wait, through recurring seasons of sun and snow, till the sturdy limbs are shelter and refreshment to the unthinking life that recks not of its benefactors.

There is an art of medicine and its multitudinous votaries attest the fruitfulness of its pursuit.

In 1880 the States and Territories of this country enumerated as either physicians or surgeons a proportion of 1 to 585; in the State of New York a proportion of 1 to 548. These salutary, health-forecasting, and longevity-producing statistics stamp the effete and tottering governments of Europe with the die of derision in their infamous disregard of human comfort; for while the proportion of doctors to population in Switzerland is 7.06 per 10,000, in Italy 6.10, in Hungary 6.10, in England 6, in Austria 3.41, in Germany 3.21, and in France 2.91, the United States, with their 17.1 per 10,000, have consummated what Berkeley foresaw, but did not dare to write—"Westward the doctor's empire has full sway."

The causes of this disproportion are complex and do not rest on the surface.

As a means of livelihood the profession of medicine is attractive, and little wonder need be that its ranks do not on this account suffer depletion.

From the social standard the profession elevates the man, no matter of what stuff he is made, if he does not ostentatiously disgrace himself. The fact is patent, and this impulse is certainly not insignificant in the choice of a future.

Combining the certainty of livelihood and the assurance of position it will, in this day, hardly be questioned

[1] The anniversary address delivered before the Medical Society of the State of New York, at the seventy-eighth annual meeting, at Albany, February 6, 1884.]

that no other walk in life holds out such positive promises of immediate reward and of continued permanence as does the medical profession. There is a larger success per thousand, with less bankruptcy, with freer and more varied opportunity than belongs to any other class, in any of the lines of occupation along which men grope their way through time.

It is superfluous, in this presence, to relate how gentle the acclivity that appears, how wide-open the portals that invite, how roseate and verdant the paths that gladden, how radiant the sentinels that summon and assist the novitiates on their way to these easily acquired places of esteem and support. The restrictive barriers are so loosely set up, and the final test of fitness so daintily applied, that the former are cast down as easily as the latter is overcome. There is not even the seclusion of an open secret; there is the common knowledge among medical men that their ranks are recruited continually with men who have accomplished the distance in accord with the most perfunctory of formalities in the minimum of time. Whether this is wise or unwise, right or wrong, is not in the drift of this paragraph. The facility of admission is the pertinent fact.

The time was, and the fiction has not wholly faded from common speech, when law, medicine, and theology[1] were denominated the *learned professions*, as distinguished from the professions of the army and navy, because a university education was a prerequisite to these special studies. To-day, in the multiplication and distribution of special knowledge, this discrimination does not hold. The profession of medicine has not kept her distinguishing place. Her recruiting sources have been so many, her safeguards of loyalty have been so weakened, her probationary tests have become so insignificant, that however smile-provoking may be the mention of the wig and cane, there is scarce anything left of the old spirit of the knight and the *prêux chevalier*, and the proportion of medical men who are in accord with the medical profession at its best, both in knowledge of its results and in capacity to do, is rapidly lessening with the years.

There is an inconsistency in all this which does not mitigate the complexity of the problem. The profession has never lost sight of the sacredness and importance of its trust—at least if spoken words are not hollow and meaningless.

If these statements misrepresent the facts, no charity should be permitted to condone the mistaken zeal that would abuse the opportunity of this platform and cast slander and reproach on the profession; but if the statements are true, the safer plan is to examine the facts and it is privileged to follow up the consequences.

The profession of medicine, at its best and in its ideal condition, includes a body of men who offer to serve the community for a consideration. The end of all medical learning is to make sick people well, to assuage the discomforts of the incurable, and to promote the euthanasia. But nevertheless personal time and labor are furnished, on which a price is set.

The matter of compensation for medical services has been handled with many degrees of sensitiveness, but the fact remains that the arts of medicine are practised as a means of livelihood. Yet it is contrary to the popular understanding, but still the fact that the cases where money is amassed from the practice of medicine are very exceptional.

The sense of loyalty, however, to the heritage and mission of medical learning has been so instinctive in its history that any suggestion of its trade instincts has been met by prompt rebuke.

It will hardly be questioned that skill in differential diagnosis is the safe basis of treatment, and varied resources in medical art lead most rapidly to the best results; and the faithful student in the profession is the one most keenly alive to the importance of both. On the other hand, it is asking too much of credulity to believe that the attitude of the profession is friendly to the community when the doctorate puts into so many undisciplined hands the medical arts which are as potent for evil as for good. Humiliating and unsavory though it be, the pregnant fact holds true that, coupled with that large body of men who base their art on principles which have survived criticism, and whose livelihood is a legitimate product of their worthy and acceptable service, there is another and large class, known to the community by the same name, with equal protection under the law, who (described lately by an influential medical journal as "hangers-on of whom any party would be ashamed") are a standing menace to the community, which, accepting all as competitors in the race, gives to all alike its patronage and its support.

The community, however, is not slow to accept the offers of mercy, for while it submits patiently to all that is ordered by the profession, takes all its medicaments, undergoes all its operations, awaits the results of all its experiments, and unhesitatingly believes everything it says, and quotes it, more or less correctly, for the neighborly benefit; the community, in its charity toward all, does not allow the profession monopoly in the practice of medicine, but with its faith in drugs, and measuring their efficacy by the violence of their operation, it swallows on bare printed promises $60,000,000 in proprietary medicines per year, and assists the fortunes of drug dealers to the extent per annum of $80,000,000 more.

On the other hand, the profession has no just complaint against the attitude of the community in the exercise of its law-making functions. I am not aware that any legislature has ever initiated any statute designed to restrain the freedom of the profession.

The President then spoke of the reciprocal relations between sanitary science and the community, and said that if sanitary science really contains the "promise of the potency" its advocates claim, and if its results should become formulated into laws for the sure protection of large communities, the reciprocal attitude of the medical profession and the community must, in the meantime, have undergone many radical changes; so radical, indeed, that the imagination might snap in the stretch to compass them; so radical, indeed, that the "goneness" of "Othello's occupation" would be nowhere in the immense hollowness of that vacancy that once was alive with the busy ministry to ills, that then shall be but a dismal retrospect.

With reference to

TEACHING AND CONFERRING DEGREES,

the speaker believed that one may be justified in parting company with the practice of the period, and demand, in the interest of medical science, for the maintenance of professional honor, and for the protection of the community, that the teaching and degree-granting authorities be *not* one and the same. Let the community, through its law-makers, legislate into control an acceptable judicial body, in which shall rest the decision of the fitness of candidates to assume the responsibilities.

No man has an inalienable right to practise medicine. He can choose to do so, but the public may adjust the tests of his fitness.

It is estimated that three-fourths of those enumerated as physicians and surgeons are, up to the limits of their individual competency, applying to the healing of human ills the best methods of experience, based on the knowledge derived from scientific research.

The community is as incompetent to decide upon the merits of the former as it is capable of being deceived by the skilful manipulation of the remaining one-fourth. The physicians who are floundering through the uncertainties that ignorance imposes, or who abuse the confidence of the community for purposes of gain; who will take any other course than to tell the truth and employ

[1] In 1880 there were 64,698 clergymen and 64,137 lawyers in the United States.

the most experienced devices to secure the speediest results, are beyond the reach of all codes, whether of human or archangelic contrivance. And yet the profession, in all consistency, having granted these the degree with a free heart and a God-speed, must consult with them on equal terms, and, in an emergency, defend them in the public confidence.

Read McMaster's delightful description of the doctor in 1784; see the same men as they are adapted to the social relations in varying communities all through the land to-day, furnished with arts and information that make them acceptable by every hearth-stone; prepare, to fill their places, men whose accomplishments shall be the test of fitness; and, with the assurance that character is the result of responsibilities well met, and that character alone is influential to make the educating impress on the community, the day need not be far distant when the medical profession shall be in the wiser confidence of the community.

There is a laudable pride in occupations, and its basis is the consciousness of doing a useful thing well. To defend his heritage is the chivalrous duty of the scholar.

Original Articles.

TWO UNUSUAL CASES IN OBSTETRICAL PRACTICE.[1]

By WILLIAM C. WEY, M.D.,

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THE title of this brief paper may be misleading to practitioners of exceptionally large experience, who are familiar with nearly all the phases which are assumed in the puerperal state. It may be misleading also to physicians who, with experience in a more limited number of cases, have been brought in contact with so many of an anomalous character as to have acquired thereby a wide range of observation and study. The term *unusual* is applied in the sense in which it occurred to me to employ it in the description of the cases which I am about to relate, inasmuch as my observation had never before included such phenomena as were then presented.

CASE I. *Concealed accidental hemorrhage, complicating labor at term, resulting in the death of the fœtus and the alarming prostration of the mother.*—Mrs. W——, an American, thirty-three years of age, married at nineteen and gave birth, in single labors, to seven children at maturity, four boys and three girls, with the exception of her third child, a girl, which was born at seven months and lived. She expected to be confined with her seventh child on or about August 16, 1883. Her health during pregnancy, as always before in this condition, had been good, and she gave constant attention to the management of her household affairs. Suddenly, at five P.M., August 6th, while sitting in a chair, and simultaneously with the vigorous and painful movements of the fœtus, she experienced a sense of extreme pressure, attended with a sinking and sickening sensation in the situation of the womb, low down and in front. She became faint, nauseated, and cold, and was compelled to lie down and call for aid. Vomiting took place, and her symptoms, which to her friends who rallied to her assistance indicated approaching labor, prompted the calling of a physician, and in an hour from the moment of the attack I was in attendance. The woman was in a state of collapse. Her hands and feet were cold and clammy, face pale, respiration sighing, pulse low and feeble. She lay on her back and complained of a sense of pressure and distention in the lower part of the abdomen. Examination of the surface to which the pain was referred afforded no explanation of the symptoms which were so manifest. It was not unduly tense, tender, or irregular in outline. Digital inspection or the os uteri elicited no evidence of approaching labor. My first thought was that in some unaccountable manner the womb had been ruptured, and that the symptoms of collapse, so conspicuously presented, were due to that accident. A moment's reflection satisfied me that rupture of the uterus could scarcely exist, except as the result of violence, accidental or otherwise, which was improbable and soon shown to be impossible. Prompt restoratives were employed, such as heat and friction to the extremities, hot bottles and bricks wherever they could be applied, warm spirits by the stomach, and to relieve the distressing and persistent feeling of discomfort in the situation of the uterus, morphine was injected hypodermically. These measures proved successful at the end of an hour and a half, and the natural warmth of the body revived. Sooner, however, the injection of morphine accomplished the purpose expected of it, and in less than half an hour the patient obtained relief from the symptoms which caused her so much suffering and uneasiness. When animal heat had been fully restored, signs of labor appeared and rapidly developed, and at half-past ten o'clock, five and a half hours from the seizure, she gave birth to a large, dead male child, the waters escaping a few minutes before, without stain of blood. The cord separated and the child removed, with one hand grasping and manipulating the uterus through the abdominal walls to favor the escape of the placenta, a discharge of coagula took place, which nearly filled a large chamber-vessel of the capacity of two quarts. The placenta followed immediately, and the uterus contracted well under the hand. The patient was faint and prostrate. A bandage was applied, the head and shoulders were depressed, stimulants given, air admitted around the bed, and the fluid extract of ergot administered in quickly repeated doses. No further hemorrhage occurred. The patient presented the appearance of an exsanguinated person, and remained four weeks in bed, with signs peculiar to that condition, such as rapid and feeble action of the heart, extreme pallor of the face, lips, and ears, inability to rise from the recumbent position without threatened syncope, humming in the jugulars, great feebleness of voice, lowered temperature, etc. At the end of seven weeks, although able to ride out, she presented the appearance of decided anæmia, and remained greatly deficient in strength.

I am moved to report this case because, as already mentioned, it is the only one of its kind which has occurred in my practice, and because I failed to appreciate its character until explanation of the symptoms was afforded in the escape from the uterus of a large accumulation of coagulated blood, in advance of the delivery of the placenta.

Burns, quoted by Churchill, refers to the accident under consideration as follows: "In such cases the effusion is accomplished with dull internal pain at the spot where it takes place. The pain is something like colic, or like the pain attending the approach of the menses. The part of the womb where the extravasation takes place swells gradually, and in a short time the uterus feels larger. If the quantity be considerable, the size increases, the uterus is felt to be firmer and tenser, as well as larger, the strength diminishes, and some faintings may come on. In course of time weak, slow pains are felt, but if the injury be great, these decline as the weakness decreases. They may or may not be attended with the discharge of coagula from the os uteri."

These symptoms correspond essentially with those which were met in the case described, except that abdominal palpation failed to detect any apparent deviation from the normal size and smoothness of the gravid uterus, and the rapid completion of labor, when reaction after collapse was effected, are unlike the signs and symptoms of accidental hemorrhage depicted by the author. Partial explanation of the failure of the test as applied to the abdominal surface is afforded in the large size of the woman and the thickness of the parietes;

[1] Read before the Medical Society of the State of New York.

also in the presumption that the situation of the placenta and the hemorrhage may have been posterior and between the fœtus in front and the uterine wall behind, thus, while adding to the bulk of the organ, in no way altering its symmetrical shape under the hand. My impression is that this test is not as reliable as would seem to be indicated, except in cases favorable to the production of the phenomena, which give it significance, and reference to Dr. Goodell's summary of symptoms, to be quoted, sustains this position. The faint and collapsed condition of the patient cannot, as a matter of course, be attributed to hemorrhage alone. The influence of shock to the nervous system, caused less by bleeding than by the pressure of the comparatively small quantity of blood, less by drain from the body than undue stretching of the muscular fibres of the uterus in such cases, may be overlooked.

It is a striking fact, not satisfactorily explained, that "accidental hemorrhage," as described, "most commonly occurs in people who have borne many children." Dr. Robert Barnes attributes the separation of the placenta in these cases to peculiarities in women "whose constitutions are worn by sickness or poverty, and whose tissues, therefore, are badly nourished, wanting in tone, tending to atrophy or degeneration."

This physical state will not apply to the case reported, which took place in a well-nourished and healthy woman in the prime of life, whose energies had not been unduly reduced by child-bearing, frequent though this had been, or the drain of nursing. I will not stop to consider the "causes" of this "accident." They are many; some probable, some demonstrable, and some quite imaginary. In the case under consideration no assignable cause appears for the hemorrhage.

Dr. William Goodell, of Philadelphia, quoted by Dr. Dawson, the American editor of "Barnes' Obstetric Operations," published a paper on "Concealed Accidental Hemorrhage," in the *American Journal of Obstetrics*, in 1869, in which the peculiarities of one hundred and six cases were considered. An analysis of these cases shows the prominence of the following symptoms in the order in which they are presented:

First, an alarming state of collapse; second, pain in every degree of severity; third, absence or extreme feebleness of the pains of labor; fourth, marked distention of the uterus; fifth, before the lapse of many hours a show of blood; sixth, an accessory tumor in uterus or abdomen; seventh, tenseness of the membranes; eighth, rupture of the membranes and the appearance of blood in the liquor amnii.

A word only on the subject of treatment in these cases. According to recent writers, delivery should be accomplished as speedily as possible. Dr. Goodell lays down the following axiom: "(*a*) That the greater the hemorrhage, the greater will be the syncope; (*b*) that the pains of labor will become feeble in direct proportion to the severity of the collapse; (*c*) that consequently they are generally absent in the worst cases of hemorrhage, and cannot be aroused by the most powerful stimulants and oxytocics so long as the uterus is over-distended; (*d*) but that, when the membranes are pierced, the vital contractility of the uterine walls condenses them, and usually provokes their organic contractility, unless the system be too far depressed." In the case under review the hemorrhage was large and the shock or collapse correspondingly great. This condition took place without the occurrence of any signs of approaching labor. The establishment of reaction aroused at once uterine effort, which was as prompt and forcible as on any previous occasion in the patient, and caused the speedy extrusion of the child, contrary to axioms *b* and *c* in the foregoing quotation, and this, too, while the membranes remained intact until the head was just about to pass into the world.

A review of the subject of "accidental hemorrhage," or, as Dr. Goodell designates it, "concealed accidental hemorrhage," makes the case reported among the most favorable in that grave form of complication in labor which can be presented to the practitioner, except where bleeding to a more limited degree falls short of destroying the life of the fœtus. The prompt accession of labor after the hemorrhage, the integrity of the membranes nearly up to the time of the escape of the child's head through the external parts, the rapid emptying of the womb of clots by external manipulation, the speedy expulsion of the placenta, and the hasty and persistent contraction of the uterus, were elements in the case by which the safety of the mother was assured at the crisis of delivery, and she was prevented from reaching a more dangerous degree of prostration from loss of blood and the shock of the process of childbirth.

CASE II. *Death of fœtus at about the seventh month; labor at term and rapidly advancing, vertex presenting; subsidence of uterine effort, caused by complete separation of the placenta, which was extracted by the hand; delivery of the child by turning; shock; peritonitis, and death in four days.*—Mrs. Mary A——, an American, born in 1843, and married at twenty-two, had given birth at full term to seven children, three boys and four girls. No accident or embarrassment of any kind took place during pregnancy or in childbirth, and her offspring, with one exception, a female child, who died of meningitis when three years old, are in good health at the time of making this report. Mrs. A——, never having miscarried, became pregnant for the eighth time about January 1, 1883. Pregnancy advanced without noticeable event, quickening was perceived in the middle of May, and motion was felt from that time almost daily until early in August, when without apparent cause it ceased entirely. Her general health remained unchanged as time advanced, and during the evening of October 6th labor set in, and I was called at midnight, and found the os uteri as largely dilated as a silver dollar and soft and yielding. The membranes protruded in great size and force at each pain. They were very dense and nearly filled the vagina. It was impossible, even at intervals between pains, to feel the presenting part of the fœtus. I attempted, without success, to rupture the membranes with my finger, and resorted to the points of a pair of scissors for that purpose, and let out at least a pint and a half of clear fluid, which afforded only natural odor. The finger then came in contact with the overlapping cranial sutures of a dead fœtus encaged in the inferior strait. The evacuation of the amniotic sac was followed by an abatement of pains in force and frequency. Half an hour later, in a moment of rest, a sudden, severe, and depressing sensation was complained of in the left iliac region, which for thirty minutes suspended all uterine effort. The situation of suffering became quickly sensitive to the touch, and the patient was obliged to assume a fixed position, lying on her back and a little to the right side with her extremities, particularly the left thigh and leg, well drawn up. The head of the fœtus did not recede, and no change was marked in the uterine tumor felt through the abdominal walls. The application of hot cloths to the seat of suffering soon afforded relief, and the case progressed slowly but satisfactorily for two hours, the patient meantime getting brief periods of sleep, when she spoke of feeling faint, and it was discovered that a slight flow of blood was issuing from the vagina. Examination through that channel failed to find any presenting part of the fœtus. My finger, pushed to its utmost limit, passed, apparently, into an empty womb. I suspected that the uterus had ruptured, and introduced my hand into its cavity, which came immediately in contact with the placenta, separated from its attachment and lying loose in the situation the head had occupied a short time before. This was extracted, globular in form, reduced in size, and firm in texture. Again inserting my hand and carrying it well up, I reached the feet and rapidly turned and delivered the child, which appeared to be a seven-months' fœtus. The bones of the head were

detached and loose, the scalp and other portions of the cutaneous surface were dark and decomposed, and the skin slipped from the feet and ankles as I made traction, in the act of delivery. The uterus contracted promptly under pressure and manipulation with the hand through the abdominal coverings, and no blood followed the removal of the child, which took place at five o'clock on the morning of October 7th. The patient bore the entire operation, removal of placenta and fœtus, which lasted only a quarter of an hour, with great fortitude.

Soon after delivery nausea and vomiting occurred, and pounded ice and drink of every kind was rejected by the stomach. The bowels distended, the abdominal surface became tender, the temperature ran up to 103° and 104°, the pulse rose to 120, 130, and 140, the catheter was constantly required, hiccough followed, and the woman died ninety-four hours after delivery from shock and peritonitis.

The treatment pursued can be mentioned in few words. The stomach was spared the reception of supporting measures, which were supplied by the rectum and well borne, such as milk and whiskey. Pain was overcome by the hypodermic injection of morphine. For a time iced champagne not only allayed tormenting thirst but exercised an apparent controlling influence over the nausea, and had it not been for the ignorance of a self-sufficient nurse, who disregarded my instructions, and withheld for a number of hours the injections of milk and whiskey in the rectum, I felt as if the patient would have rallied from her extreme depressed condition. This exhibition of stupidity occurred, unfortunately, just at a time when the stomach had been composed for more than fifteen hours, and when reduced temperature, improved pulse, and quieter respiration filled me with hopefulness in view of the termination of the case.

It is to be regretted that the placenta was disposed of, soon after its removal, in such a way as to prevent further examination of its structure, and the morbid changes by which its separation from the maternal surface had been effected. It should be mentioned that suspicion of syphilis, as a factor in causing the pathological changes which were wrought in the structure and functions of the placenta, could not be entertained in this case.

The questions connected with this narrative are interesting and of value, first, because the expulsion of the placenta before the child may occur as an accident in labor, without necessarily giving rise to hemorrhage, though putting in jeopardy the life of the child, according to the time which elapses between the natural or artificial removal of the after-birth and the birth of the infant; and again, because the manual extraction of the placenta, in case of placenta previa, may prove the readiest and most scientific means of controlling hemorrhage and saving the life of the mother.

We are indebted to the genius of Sir James Simpson for an exposition of the effects, as regards hemorrhage and its attendant dangers, of complete separation of the placenta in labor before the expulsion of the fœtus from the womb. "Paradoxical as it may appear," using his own words, "there are sufficient grounds and facts for believing that when the placenta is separated slightly and partially, the chance of fatal hemorrhage to the mother is greater than when the disunion of the organ is entire and complete." He adds, in another place, "I believe I have collected a sufficient number of data to prove that, when the disjunction of the placenta from the uterus is *perfect* and *complete*, the degree of material hemorrhage which occurs is, in general, exceedingly slight and trifling, or it is altogether arrested" ("Simpson's Obstetrical Works").

These cases present certain features in common, such as manifest local and general symptoms at the time of partial or complete separation of the placenta.

A question may be raised in respect to the propriety of rupturing the membranes, in the second case, when labor seemed to be proceeding so rapidly. As stated above, this was done to ascertain the character of the presentation. It is quite likely, if the membranes had not been ruptured, the continuance of pains, as they were then advancing the case, would soon have terminated labor by the natural method. The discharge of one and one-half pint (estimated) of liquor amnii permitted the uterus to shorten its fibres on its contents, consisting of a dead fœtus and a diseased placenta, the latter holding only partial and slender attachment to the maternal surface. This contraction detached the placenta, which had withstood pressure as long as uniformly maintained by an evenly distended womb and a superimposed quantity of bland fluid; hence the accident under consideration. It would have been in the line of allowing nature to take its course, whereby the reminder of "meddlesome midwifery" might have been avoided, if the membranes had been suffered to remain intact as long as they were able to resist the pressure which urged them through the os uteri.

In the second case signs of rupture of the uterus were strongly presented, such as the immediate occurrence of a severe and depressing sensation, amounting to pain and tenderness, in the left iliac region, with the suspension of uterine effort, for a period of thirty minutes. These signs were dispelled, labor was resumed moderately for a couple of hours, when they were again and much more formidably established by faintness, the appearance of blood in the vaginal discharge, and the recession of the advancing head. The uterus emptied by the details given, the signs of rupture, not perceived in the manual operation, still persisted, such as nausea and vomiting, abdominal distention and tenderness, and the later evidence of shock and peritonitis. The uterus remained well contracted, as ascertained by palpation on the day following delivery, not stated in the report, as it might have done even if it had been ruptured. A portion of intestine caught and held in a rent in the uterus, too limited in extent to allow any part of the fœtus to escape in the abdominal cavity, and evading detection by the hand, in the process of turning, as mentioned by writers, would have produced precisely such symptoms as were developed in this case. I am compelled, however, to exclude rupture as an element in this history, for the reason, chiefly, that it was not demonstrated with my hand twice in the cavity of the uterus.

A Curious Gun-shot Wound.—Dr. A. R. Platt, of this city, reports the history of a curious case of gun-shot injury which was under his charge. "The patient," he writes, "was placed in my private hospital, at Chefoo, North China, by Dr. B. C. Rogers, Passed Assistant Surgeon U.S.S. Monocacy, on September 22d, who furnished the following report of the case: 'Name, Olaf M——; landsman, U. S. Navy; age, twenty-three; native, Norway; disease, vulnus sclopetarium; September 11, 1883, off Rose Island, Corea. The patient, while pulling in one of the ship's boats, making the regular 2 P.M. trip to the settlement ashore, was shot by one of a party of marines belonging to the vessel and then at target practice on Rose Island. (The ball—conical Hodgekiss; weight, 360 grains—struck the edge of the target, lost 20 grains from its point, and passed at a right angle in the direction of the boat.) The ball entered the right temporal region above the zygoma, and about one inch behind the supra-orbital ridge, passing obliquely across the intervening tissues and bones, and lodged underneath the skin in front and above the angle of the lower jaw on the left side, from whence it was shortly after cut out, and the wound dressed with carbolized water, 2 per cent. No fever since accident; pulse ranges from 52 to 60; voids urine, and bowels move naturally. Takes liquid and semi-solid nourishment.'" The patient made a good recovery, and was discharged cured in about two weeks.

DYSMENORRHŒA; ITS TREATMENT BY DILATATION.[1]

By WILLIAM WARREN POTTER, M.D.,
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Any departure from the normal performance of the menstrual function may so materially affect the health of woman—nay, does oftentimes so greatly disturb her whole mental, physical, and social being—that it becomes at once interesting and important to discuss any methods and means which may be offered, whereby the equilibrium of this great physiological balance-wheel of the female economy may be restored when once it becomes upset or thrown out of gear. The management of these disorders is, moreover, a subject of paramount importance to the general practitioner, since these cases more commonly fall under the observation of the family doctor. It is so, at all events, in their initial or earlier stages; only exceptionally, and when there is some great or unusual severity attached to them which has resisted the ministrations of the regular family attendant, do they consult the specialist.

There is neither the charm of novelty in the subject, nor yet great originality in the form of its presentation, and, leaving the uncertain field of pathology for the most part behind, I shall crave the ear of the Society for a few moments only in the consideration of the therapeutics—particularly the mechanical therapeutics—which are applicable more especially to the neurotic variety of dysmenorrhœa.

The fact that these questions have often been considered before seems not to detract from their interest or importance, for, I asseverate, it is only by iteration and reiteration, by filing, and refining, and pruning, and recasting, that we can expect to arrive at truth in questions of practice which are, as yet, not fully understood, or, mayhap, greatly misunderstood.

Until quite lately it has generally been held that forcible dilatation of the cervical canal should be resorted to only in cases where there is found some mechanical obstacle to the exit of the menstrual fluid, as, *e.g.*, in stenosis or flexures of the uterus. Or, to state the case in another way, the beneficial effects of forcible rapid dilatation of the cervix uteri have been limited, in the minds of a majority of the profession at least, to those cases in which there was found some mechanical obstruction of the uterine orifices, either internal or external. Those who still hold that there is generally some mechanical barrier to the flow in painful menstruation are not a few; those who believe that anteflexions of the womb furnish a considerable proportion of these cases are many; while still a goodly number of medical men are of the opinion, that if the uterine sound can be readily passed into the cavity, there need be no occasion to dilate the canal for dysmenorrhœa. Now the writer has somewhat gradually reached the opinion, that the pain bears no especial relation to the calibre of the channel of exit in the virgin uterus.

Dr. Otis has demonstrated pretty conclusively, that strictures of large calibre in the male urethra are sources of infinite trouble and anxiety, in the management of diseases of the male genito-urinary apparatus, that the reflexes which they produce are manifold, and that the true method of relief consists in restoring the channel to its normal calibre throughout its whole length. Furthermore, we are taught that each particular case is a law unto itself as regards size, that each urethra is to be dilated according to its own necessities, and that no one case furnishes a guide as to the amount of dilatation required for the next. While it is true that the structures of the two localities are not absolutely alike, nor are the functions of the organs precisely the same, yet there is sufficient parallelism in both structure and function to furnish an analogous deduction as to cause and effect, and to afford some practical suggestions for the relief of the cases in question.

[1] Read before the Medical Society of the State of New York.

With regard to the bearing anteflexions have upon dysmenorrhœa, the views of the more experienced observers appear to have undergone considerable modification within the last few years. Formerly it was quite generally believed that anteflexion, especially when the angle was anywise acute, stood in the positive relation of cause to the malady in question; that the bending of the uterine canal formed a valve-like barrier to the exit of the menstrual secretion, hence the painful contractions of the uterine muscular fibres, in the effort of the organ to rid itself of the imprisoned fluid.

An objection to this theory, among others, is that a great number of women who have anteflexion of the womb, even when the elbow is quite abrupt, do not suffer with dysmenorrhœa; nor, in those cases which do so suffer, does the disease always yield to the straightening of the organ; while, on the other hand, dysmenorrhœa associated with anteflexion is sometimes cured without straightening the uterus. These facts, together with many others which need not be mentioned now, tend to show that when the two conditions coexist they do not necessarily bear the relations of cause and effect, but rather those of coincidence. My own observations lead me to the corroboration of this latter conclusion.

But there are other complications of dysmenorrhœa, which becloud and overshadow the real malady, in such a manner as to render the primary suffering insignificant, or of quite secondary importance, while, at the same time, they obscure the diagnosis and are misleading as to treatment. I refer to those mysterious reflex phenomena which have been so aptly named hystero-neuroses. The value of mechanical dilatation in these cases is, in my opinion, very great. I have seen a patient, thirty-five years old, married but sterile, who for a number of years was obliged to take to her bed several days during each menstrual epoch on account of both pain and nausea, but particularly because of the nausea, entirely relieved of all discomfort by dilatation of the cervix—this, too, when there was no flexure or other malposition of the womb, nor stenosis, but great hyperæsthesia at the internal os, which was the sole discoverable fault.

That form of dysmenorrhœa which is usually described as spasmodic, and which is, moreover, generally complicated with a reflex neurosis of some form or other, offers an especial field for the employment of the dilator. The true pathology of these cases it may be difficult to explain, but they almost invariably present great hyperæsthesia at the inner os, and when this sensitive point is reached or touched by the dilator it is almost sure to provoke a manifestation of the same reflex phenomena, though in a less degree, which occur at the ordinary menstrual periods. These latter, however, are usually of short duration, generally subsiding immediately upon, or very soon after, the withdrawal of the instruments.

Whatever be the causes of this morbid sensibility at the point described, it seems quite certain that it plays an important part in the etiology of the form of dysmenorrhœa in question, for when it is overcome or blunted by the use of the dilators the malady itself is either benefited or removed. So, too, with the reflex phenomena, such as intense nausea, gastralgia, headache, hysteria, and other neuroses, for they also subside with the same promptness when the dilator has accomplished its work. Whereas, therefore, the menstrual week has heretofore been ushered in with backache, headache, nausea, and a most distressing general malaise, which has finally culminated in agonizing pain in the pelvic organs, the whole molimen occupying from five to ten days, we now find that the subject is often taken with the flow unawares, even while on the street or at an evening party, and passes through the entire epoch with very little or no physical suffering. This is no fanciful sketch or exaggeration of the facts, for I have seen the like over and over again, and am constantly meeting with parallel cases in practice—cases which have resisted all the usual

measures adopted for their relief, but which have readily yielded when dilatation has been thoroughly and systematically employed.

It is scarcely necessary to remark that there is nothing novel in the employment of mechanical dilatation for the relief of dysmenorrhœa. Mackintosh dilated the cervix uteri as early as 1826. Later the method was employed by Sir James Y. Simpson for various conditions and with variable results. Priestley, Ellinger, Busch, and others have recommended it, and have also devised various instruments to facilitate its success. Their instruments were, however, introduced closed and then forcibly separated, spreading open the cervix by the divergence of two or more branches. Then came the days of the sponge-tent, whose efficiency the elder Storer praised so highly; next the sea-tangle, and finally the tupelo tent. The method of dilating the uterus by tents is, however, open to the dangers of septic infection, hence numerous instruments have been devised, having for their object rapid or gradual dilatation without the dangers of sepsis. Peaslee first, then Hanks and some others in this country, and Lawson Tait and Hegar abroad, have presented us with graduated uterine dilators, made of metal or hard rubber, most of which answer admirably the purposes for which they are designed. Their methods of use are quite alike and may be briefly described as follows: The patient is placed upon the table in the semi-prone position, and the Sims' speculum is introduced. The cervix should next be fixed with a double tenaculum, or a volsellum. I lay stress upon the method of the fixation of the cervix. The single tenaculum is not firm enough, and, besides, will often tear out during the process of dilatation. Emmet's or Hanks' double tenacula are well adapted for this use, and if I should express a preference for Emmet's instrument, it is because of being more accustomed to its use. When the cervix is firmly secured one of the smaller dilators is introduced and carried through the internal os; if this passes readily it is immediately withdrawn and the next larger size carried up, this process being repeated until considerable resistance is met with, when the dilator is allowed to remain a few moments *in situ* before attempting the next size. The extent of the dilatation required will of necessity vary considerably in different cases, but as a rule I should say that it need not be very great, particularly in cervices of large calibre, and this statement is based upon the observation of cases which I have met. The resistance, too, becomes less, speaking generally and within certain limits, as the dilatation advances, which circumstance indicates that the stretching need not be extreme to obtain relief. This process of dilatation may quite often be accomplished without the aid of an anæsthetic, but now and then the hyperæsthesia at the internal os is so great, and the resistance as a consequence so powerful, that in order to obtain the full benefits of the measure ether had best be given. A cotton tampon wet with glycerate of morphia, or other sedative, makes an appropriate dressing; rest in bed for a day or two, and in some cases even longer, is a most desirable precaution against cellulitis or other possible after-complications, and the hot vaginal douche, if properly used, may be made to play an important part in contributing to successful results.

Not every case of so-called spasmodic or neurotic dysmenorrhœa will be cured by dilatation—it were too much to claim infallibility for any method—but I am sure that I speak within the limits of truth when I asseverate that a large number of cases will be entirely relieved of all suffering at the menstrual epoch, that still a very large number will undergo such a modification of their sufferings as to be rendered comparatively comfortable, while only a small minority will fail of any sort of benefit thereby.

Now, be it remembered, I am speaking of the benefits of dilatation in a class of cases wherein it has heretofore been considered an unnecessary procedure, by reason of the already tolerable calibre of the cervical canal, and the apparently unobstructed outlet for the menstrual flow, as indicated by the ready passage of the probe or sound. I present a case, if you please, which is free from abnormalties of position, both as to kind and degree, one which at all events is free from the complications of flexures; a case where the uterus is normal as to size and shape, and in which the relations of cervix and body are natural; a case where the os and cervix uteri are patent if not patulous, without any observable mechanical opposition to the egress of the catamenial fluid; and yet, nevertheless, a case which is subject to all the agonizing sufferings of dysmenorrhœa in its more aggravated form, accompanied by the reflex phenomena, few or many, with which we are all so familiar, and which are even more painful to endure than the agony of the disease itself. I present a case, moreover, which has resisted all the usual remedies, internal and external, which are ordinarily employed, but which I need not now enumerate; medicines and methods whose efficacy and relative value we can all attest and appreciate, and which, withal, have been employed with conceded skill and judgment, and a persistency never so relentless.

Here, then, is the case where I should confidently expect good results from dilatation; for in such a case, I should be almost certain to find thickening and great hyperæsthesia of the structures about the inner os. Rejecting the theory of mechanical obstruction in the etiology of the case, we nevertheless have a somewhat analogous condition to that found by Dr. Otis in "strictures of larger calibre," and requiring a similar management for its relief. In a case like the one just described the tissues about the so-called *os uteri internum*, particularly those forming what I shall, for the sake of convenience of description, term its anterior lip, will, speaking generally, be found considerably thickened, even though there be no anteflexion, and this thickening will oftentimes extend downward along the anterior wall of the cervical canal in the shape of an inverted cone, the apex of which finally loses itself in the softer and more natural structures of the subjacent tissues of the cervix. This pyramidal-shaped body generally presents great resistance to the dilating instruments, becoming as it has of a hard and gristle-like formation, or presenting that sensation through the instrument to the operator whenever it is pressed upon with even moderate force. This leads me to remark, just here, that for such a case I prefer the conical vulcanite bougie of Hank's pattern, rather than the two-bladed expanding dilator; for the bougie makes pressure more directly upon the thickened and sensitive tissue, thereby more certainly relieving nervetension and more efficiently promoting absorption of the hypertrophic enlargement which seems to be the true seat of the neurosis.

How, then, let us inquire, do the dilators act in removing the head and front of all this offending? Though aware that it is much easier to ask questions than to answer them properly, I venture, in reply, to offer the suggestion that they act in a two-fold way: First, by stretching out the nerve ends or filaments which have become entangled in the hypertrophic mass around the os internum their sensibility becomes so blunted that they do not as readily take umbrage at the phenomena which occur during menstruation. The principle appears much the same as that in which nerve-stretching relieves ordinary neuralgias. Second, by pressure upon the thickened and hardened tissues partially surrounding the os, and extending downward along the cervical canal, they set up or promote absorption of the morbidly hypertrophied structures.

Can these results be expected to ensue from a single dilatation? Manifestly this is too much to hope for in every case, though it does no doubt take place in a few; at all events, they are relieved of the symptoms for which advice was sought, and as this is the desideratum aimed at by any or all methods, it must, perforce, be

accepted as *prima facie* evidence of cure. More often, however, repeated dilatations will be found necessary in order to realize the best benefits of the method; and I wish to lay considerable stress upon the assertion, based as it is upon the cases which I have personally observed, that consecutive dilatation offers the better probabilities as to permanency of cure.

To rid myself of any possible misapprehension regarding the method of employing dilatation which has been most successful in my hands, let me briefly formulate its more salient points as a conclusion to this paper, even though it involve a repetition of some of its parts.

Given a case of neurotic dysmenorrhœa, occurring in either an unmarried or sterile woman, I should aim to make at least two appointments for the use of the dilators during each intermenstrual period, the last one to be not nearer than five days to the expected molimen. Commencing at each *séance* with such a bougie as will pass easily and without pain, one after another, of gradually increasing size, are introduced, until the limit of endurance on the part of the patient is reached, whereupon the dilator is allowed to remain *in situ* for ten or fifteen minutes. If sufficient stretching can be accomplished without an anæsthetic, well and good; but if not, then its employment is recommended.

By this process we not only overcome any spasmodic action which may lurk in the muscular fibres surrounding the internal uterine orifice, but, best of all, we bring that continuous pressure to bear upon the thickened cervical walls which exerts a most potent and material influence in promoting such tissue-changes as are required to make way with a malady which is laying the foundation for a chronic invalidism in too many young women of the land.

306 Franklin Street, Buffalo, N. Y.,
February, 1884.

SOME REMARKS ON THE SUBJECT OF CLEFT PALATE.[1]

By A. VANDERVEER, M.D.,

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Mr. President: It is my intention to follow this brief paper with a series of questions addressed to such surgeons as I believe have taken an interest in congenital deformities of the mouth, with a view to ascertaining, if possible, what percentage of cases are really benefited by the various operations as well as the success attending the use of mechanical contrivances. It is not improbable but that statistics may be of great value, either in placing the operation where I have reason to feel it belongs, in the class of successful surgical work, or it may be in leaving the cases entirely to themselves, to struggle on through life, perhaps to be treated only by our much-respected friends in the dental profession.

The subject of cleft of the hard and soft palate is one not so well settled in the minds of surgeons as to exclude further elucidation, and while it is hardly safe for one to attempt to advance much that is new, I am convinced that more careful examinations and reports of our cases one, two, or more years after the operation has been performed are needed. It will ever remain a source of regret to the profession that such successful operators as Warren and Ferguson, the latter operating over three hundred times, did not leave a more correct record as to the results, the principal reason for doing so difficult an operation being the benefit resulting in the restoration of the speech, especially in pronunciation. I care not how the operation may have been done; and surely the writers upon this subject have been sufficiently numerous and clear to place the steps of the procedure in so plain a light that none need err in doing it.

In a clinical lecture of mine, found among the published volumes of "American Clinical Lectures," edited by Dr. E. C. Seguin, I have presented the different steps and manner in which I prefer to operate, the method being strictly that of Sir Wm. Ferguson, whom I had seen operate a number of times.

I have said a difficult operation, and such I consider it when the attempt is made to close a complete cleft. I have never yet been obliged to stop an operation because of hemorrhage, but I had it present at times to an alarming degree. Once I was obliged to postpone an operation because of the great and rapid secretion of mucus, it being so severe that the bronchi filled to a dangerous extent, and suffocation seemed imminent. In the second attempt I put the patient for a day upon the use of belladonna with good effect. It is one of the few operations when done on children in which I regard chloroform safe. I never use chloroform in any other operation, and not in doing this after ten years of age. It is an operation where experience is of service as to dexterity, as to time consumed in doing it, and in teaching parent or nurse how to improve the speech afterward, and also, I believe, as to the time of selecting the case for operating. I believe that if we could get honest statistics we would find the best time for operating is immediately after first dentition, say when the child is about two years old, and that previous to this no attempt ought to be made toward having the child talk. Then there is not so much danger of acquiring that nasal twang which is so difficult for an older person to overcome. The cases of incomplete cleft, where there is no hare-lip, I would also include in this period.

I wish now to present in a practical manner the arrangement of cases, speaking almost entirely of the congenital form of cleft and as to the manner of operating, also as to the results in regard to speech, and to contrast the time at two years of age and when the operation is done later. In all cases of cleft complicated with single or double hare-lip, I would operate upon the latter malformations first and at as early a date as possible. The union of the soft parts does aid, I am convinced, in bringing together the bony vault of the mouth, which is very desirable. Then, again, it does to a certain extent carry the child out from the domain of idle curiosity and observance, and thereby lessens the burden of the parents. Some of these children will die before reaching the age of two years, not because of imperfect mastication, but they are bound to bear their ratio of death with the rest of the infant family. In double hare-lip, while the treatment of the island or intermaxillary bone has been dealt upon very clearly by the various writers, I am convinced that of the different complications it is here that experience is of the greatest service, and that almost every case presents one or more peculiar features, the same condition not to be seen again in a number of cases. To save it when possible is, I believe, good surgery. There can be no doubt but that it preserves the fulness of face and in after years prevents the childlike contraction or appearance which is so striking in some adult faces. I think the cases are few where in saving the island you can go on and unite both sides during the same operation.

As to the manner of closing the single hare-lip there need be little difference of opinion. The law is inflexible that to procure a good result the vermilion border of the lip must be always on a line, projecting if possible a little. If not, an apparent notching occurs.

Regarding the manner of dealing with this island, as my experience goes, I wish to present the following cases, having this in mind, that if I cannot save the bone I try to save the healthy skin covering it, be it ever so small, and to shape it in such a way that by angle, curve, or square I fit it either into, between, or to one side of the upper lip, using the latter as flaps—the small portion aiding in its way to prevent the contracted appearance of the face.

In the following case, sent me by Professor Bigelow, of

[1] Read before the Medical Society of the State of New York.

this city, there presented that dreadful deformity, such as is seen in a minority of cases only, for which we should be grateful, with the island shooting up almost like a horn toward the nose. There was covering it quite a surface of healthy skin and I determined to save all. Accordingly I first took from the septum, with curved bone forceps, a V-shaped portion of bone, and then broke the island into position on a level with the alveolar ridge of the upper jaw and held it there for a period of ten days with compress and adhesive plaster.

Two weeks later I freshened the edge of fissure on right side, also edge of skin covering the island, and then brought the flap or upper lip on that side up to it, holding it there with two silver pins, and got good union. Two months later, and when the child was not quite six months old, I treated the fissure on the left side in a similar manner and got a perfect result. Unfortunately, in the sense of completing the operation for closure of cleft in the hard palate, this child died of cholera infantum just at the end of its second year, and at a time when its parents were ready and anxious for the final operation.

The saving of the island I am sure gives a better septum for the nose, as is reasonable to conclude when comparing this case with another in which the island was removed.

Master B——, aged six months, had a double hare-lip with the intermaxillary bone so prominent that it was deemed best to remove it entirely. This was done in the first operation, lateral incision made from angle of nose on each side outward into the cheek and then the two flaps forming the upper lip were brought together, the union being quite perfect. Later on, and in second year, two operations were required for closing the cleft in hard and soft palate, but his voice did not improve as I had hoped. I did not see him for nearly three years, when he was brought to me and on examination I found the upper lip had no union with the septum or vomer, and that through this opening the air escaped in such a volume as to partially account for the non-success in speech. These cases are difficult to remedy, and while in this case I advised further operative interference, the parents, who live some distance in the country, have not presented the little fellow.

Master C——, aged four years, presented through the kindness of Dr. Neher, of Worchester, N. Y., made almost as frightful an appearance as Master B——. We operated on him the same number of times, saving the intermaxillary bone, with a result as to appearance and voice nearly perfect.

As to results in closing cleft of the hard and soft palate, after watching the patients for several years, if I never operate again, I shall feel all my hard work has been well rewarded in the restoration of speech, as seen in the cases following.

Lizzie C——, four years of age, with a complete fissure of the soft palate and cleft of the hard, was operated upon, June 9, 1874, by the periosteal operation of sliding the soft tissues unsuccessfully. A year later I did Ferguson's operation with the most gratifying results, the child being able to talk, sing, and use her voice as well as other children. At the present time it would not be suspected that she had ever suffered from any deformity of the mouth.

Eddie M——, three years and four months of age, born with complete cleft hard and soft palate, was operated on in same manner as little girl; first, Ferguson's operation being done February 3, 1876, followed by two others before the cleft was entirely closed. He is now in possession of as perfect speech as one could wish, being understood by his playmates, and while in school there is no noticeable difference in his tone of voice.

A patient, Miss N —— was operated upon June, 1876, at the age of fourteen, after another surgeon had succeeded only fairly in doing the periosteal flap operation. I did the full Ferguson, getting almost complete union, yet was much annoyed afterward in three distinct attempts by cautery and operation before getting entire closure. She has never been able to throw off completely the nasal tone, an evidence, I am convinced, that the operation ought to be done early.

This nasal twang is difficult to overcome in much less severe cases, as that of Miss T——, aged fourteen, upon whom I operated, November, 1876, by periosteal flap in hard, and side incisions in soft palate for incomplete or half cleft, and complete in soft palate, putting in seven sutures and getting complete union in one effort. This patient, by the aid of a most persevering and intelligent aunt's efforts, in talking slowly has almost overcome the twang.

A bright contrast is seen in the case of Master F——, seven years of age, who was operated upon, February 16, 1880, for congenital cleft of soft palate, attended with a condition of enlarged tonsils rendering his speech nasal and very indistinct. The edges of the bifid uvula were pared; four sutures were introduced, one of which was passed directly through the velum; a small buttonhole was incised at the hamular process to relieve the tension, with the result, one year after operation, perfect in every respect. That the operation is a severe, and I might say difficult one, there can be no doubt. That repeated failures in doing it in some cases has been my experience I am willing to admit, yet in these cases, with one or two exceptions, I have finally conquered, and in neither was the patient left any the worse for the future trying of an obdurator.

That cases do get on in life without any operation being done and are then improved by use of obdurator is shown by Mr. C——, who was born with double hare-lip and cleft of hard and soft palate, and although treated with fair success for hare-lip in infancy, had nothing done for palate until about the age of sixty, when, at my suggestion, he had a plate made by Dr. Kingsley, of New York, fitted, and found his speech improved considerably by its use.

These cases are not always so benefited. Mr. S——, aged seventy, was operated upon when a child for hare-lip, by Guthrie, and then given to the dentists for relief, when eighteen years of age, by the use of obdurators. Has never been in the least improved, and life has been to him a sorrow. It is with great difficulty he can be understood.

That we ought to be careful not to promise too much I am fully aware, and yet encouragement should be given when there is hope, and these embarrassed, unfortunate children relieved. That some cases are stubborn and require great courage and perseverance cannot be denied.

The case of Master F—— required no less than five operations, the first done for hare-lip at six weeks of age, and the others for cleft palate later, beginning when he was two and a half years old. Yet, were you to see him now, I am sure you would exclaim with his faithful aunt, "All trouble and care have been fully rewarded; his speech is almost perfect."

For Hemorrhoids.—Dr. Benj. Lee, of Philadelphia, recommends the following (*Medical Times*):

℞.	Pulv. rhei	ʒ iv.
	Pulv. aloes	ʒ iij.
	Pulv. myrrh	ʒ ij.
	Sapon. hisp	ʒ ijss.
	Ol. cajeput	3 j.

The powders are to be rubbed together and the soap then worked in, afterward the oil. The well-mixed mass is kept in tight bottles. The fresher it is, the better. Three grains of this mass make an effective pill, which is non-irritating, and may be used a long while without diminishing the susceptibility of the intestines, and often with positive benefit to the hemorrhoidal affection. Cascara sagrada in two-grain doses is also beneficial.

Progress of Medical Science.

MENTHOL AS AN ANODYNE.—Dr. E. C. Wendt, at the last meeting of the Neurological Society, showed a little contrivance, called by the Germans "migränestift," and explained the method of its application and uses. It consisted of a piece of menthol moulded into a conical shape, and secured in a little wooden box, closed by a cover to prevent evaporation, soiling, and breaking. It seemed to be very little known here, although it was much used abroad, especially for sick headache.

His attention had been first directed to the anodyne properties of menthol by a short notice, published in THE MEDICAL RECORD of April 28, 1883, by Dr. Cammann. That gentleman had recommended an alcoholic solution of menthol (3j. to ℥ ss. alcohol) to be painted over the affected parts. Dr. Wendt had, since that time, often used this solution, and found it a rather reliable anodyne. Its pain-relieving action was restricted, however, to the slighter ailments, especially those of a neuralgic character. Since his acquaintance with the solid menthol-cone, he had frequently substituted the direct application of menthol by means of the latter for the solution formerly employed. He would admit that the only advantage which the solid cone or pencil had over the solution consisted in the greater simplicity of its application, its ready portability, and the fact that its vapor was not apt to irritate the eyes of susceptible patients. He had repeatedly heard complaints in that direction from ladies regarding the solution, which was obviated by using the cone.

In this country menthol had not yet received that amount of recognition from the profession to which its pain-obtunding properties would seem to entitle it. Dr. Wendt here quoted from a descriptive notice, which had appeared in the *Midland Medical Miscellany* of October, 1883:

"Menthol, or menthylic alcohol, is a crystalline substance deposited from the oil of peppermint, prepared in China and Japan from *mentha arvensis var. piperascens* and *glabrata*.

It formed the chief ingredient of a much-valued remedy for neuralgia before its nature or source was generally known. Under the name of po-ho-yo, or *gouttes Japonaises*, it has been sold in small bottles labelled with Chinese characters. It is a white crystalline stearoptine, melting when pure at 97° Fahrenheit, and is obtained by the Japanese from the oil of peppermint by submitting it to freezing several times in succession until no more menthol crystallizes out. It is also said to be contained in the American and English oils of peppermint, but probably in small quantities only. The supply of menthol is uncertain, the demand great, and the price, in consequence, occasionally very high.

Menthol is said to be sometimes adulterated with crystals of Epsom salt, to which it bears a great resemblance. These being insoluble in alcohol or chloroform, in which fluid menthol is freely soluble, can easily be detected. Samples of fine crystals sometimes contain some essential oil adhering to them, a fact which must be taken into consideration when the menthol is made into cones or pencils."

Menthol is but slightly soluble in water, although imparting a strong odor and taste to that liquid, and is soluble in aqueous alkalies. It is soluble in fixed and volatile oils and in ether.

Although Dr. Wendt's experience with menthol had not yet been a very extended one, it had nevertheless been sufficient to convince him of the utility of the drug in a rather large class of cases. Thus, as already stated, he had found it a pleasant and reliable anodyne in all the lesser neuralgias, and especially in those so frequently occurring about the face. But it was also serviceable in many painful affections due to inflammatory processes. For example, in mumps, in the cervical adenitis so often accompanying sore throat, and in numerous other affections where pain was a prominent symptom, menthol might be used to advantage. With regard to its topical action, it was similar to that of aconite, over which it had the advantage of not being poisonous.

Dr. Wendt related one rather striking case of quite severe supra-orbital neuralgia, which refused to yield to the oleate of aconitia, but was much benefited by the menthol. But on the whole, in violent attacks he found it almost useless. In typical migraine, for instance, where the pain was at all severe, and in all deep-seated aches of more than very moderate intensity, it had no appreciable effect, except, perhaps, the indirect psychical action of distracting the sufferer's attention.

TURPENTINE-IODOFORM.—A solution of iodoform in turpentine is lauded by De Renzi (*L'Imparziale*, November, 1883), as quite beneficial in pulmonary troubles, more especially, however, in phthisis. Five drops of the solution are to be poured on wadding and then inhaled. This is to be repeated every few hours. The method is not entirely new, but does not appear to be much used in our country.

THE EFFECTS OF A WARM FOOT-BATH.—In order to determine whether warm foot-baths were of any value as a derivative in cerebral congestion or as a means of inducing a congestion of the pelvic organs, Dr. Sciolcowsky made a number of observations, noting the changes of temperature in the external auditory meatus, the axilla, and the rectum. The duration of each foot-bath was from fifteen to twenty minutes, and the temperature of the water was from 92° to 97°. He found that the temperature rose in the axilla and external auditory meatus, while it fell in the rectum. The volume of the vessels in the upper extremities was decreased. There was an increase in the frequency of the pulse and in the blood pressure. These observations showed that the warm foot-bath diminishes the flow of blood to the abdominal and pelvic organs, while at the same time there is an increased flow to the superficial parts. The foot-bath, then, neither diminishes the hyperæmia of the brain and its envelopes nor increases that of the pelvic organs. —*Memorabilien*, No. 7, 1883.

PROPHYLACTIC TRACHEOTOMY IN A CASE OF TRAUMATIC EMPHYSEMA OF THE HEAD AND NECK.—Dr. H. Schmidt relates the case of a man who struck his neck against a pole. In a few hours an emphysema was developed, extending on the left side from the temple down to the third rib. The voice became hoarse. Owing to the rapid development of the emphysema, and the fact, as shown by the changed voice, that it extended also beneath the mucous membrane in the neighborhood of the larynx, Dr. Schmidt determined to perform tracheotomy. This was done with immediate relief to the respiration, which had been difficult. No more trouble was experienced, the emphysema rapidly disappeared, and after twelve days the canula was removed and the patient allowed to resume his work. The voice, however, was permanently changed.—*Memorabilien*, No. 7, 1883.

POISONING FROM A LEECH-BITE.—Dr. Gmeiner relates a case of fatal poisoning from a leech-bite, occurring at Berne (*Journal de Médecine de Bruxelles*, vol. lxxvii., 1883). A man who was suffering from severe toothache, on the advice of a dentist, applied a leech to the gums. After a couple of hours the pains increased and a slight inflammatory redness appeared on the lips, soon spreading over the neck and chest. The following day there was swelling of the tissues about the head and face, and the patient had a high fever and dyspnœa. A few hours later he became delirious, had convulsions, and died the following night. The wound caused by the bite of the leech was of some size and black in color. The leech had been for a considerable time in the pharmacy where it was procured, and it was impossible to determine the nature of the poison from which the man died.

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GEORGE F. SHRADY, A.M., M.D., EDITOR.

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THE MEETING OF THE STATE SOCIETY.

THE meeting of the Medical Society of the State of New York, which for several reasons was looked to with interest by the profession throughout the country, was, as might have been anticipated, largely attended.

The scientific work was up to the ordinary standard, and would have been above it except for the lack of opportunity for the presentation of many papers in waiting. There is shown more and more a disposition on the part of members from the State to contribute to the scientific proceedings by practical articles. As an earnest of what is appreciated we are pleased to see with what favor papers from the general practitioner are received, and what interest is awakened and discussion is stimulated by contributions bearing upon the treatment of the commoner diseases. Specialism occasionally spices the feast with a brilliant suggestion, but the solid every-day food for the general worker must be gathered from the ordinary experience of the masses. Hence we note, in passing, how easy it was to start an instructive discussion upon the much-used and much-abused chlorate of potash as a gargle. If there was anything deserving criticism regarding scientific discussions it was that there was too much hurry in the transaction of the great mass of business to allow the proper opportunities for the free interchange of views. Still it was perhaps the best that could be done under the circumstances.

The Code question came up for discussion as a matter of course. Every member and delegate was prepared for the issue. The discussion was a necessary preliminary to the voting. In the former nothing new was presented in the way of argument *pro* or *con*. Indeed, it would be difficult to understand how it could be otherwise, in view of all that has been said and written upon the subject. Hence it is fair to assume that the minds of the members were made up, and that discussion did not secure a change of vote one way or the other. The gentlemen advocating a return to the Old Code came out in force, and their arguments received the respectful attention of the audience. It is to be deplored, however, that the general good temper of the discussion was marred by a threat by the Old Code advocates to secede from the Society in case the majority was against them. On general principles there was no excuse for this. However much many members of the profession may sympathize with them in their views, they will not overlook the bad policy of resorting to such a device. But this point hardly needs discussion from any reasonable standpoint. The advocates of the New Code again win, and the result as given by the ayes and nays is acknowledged by all to fairly represent the views of the State Society on the question at issue.

The subject of State examinations very properly received full consideration. It is quite apparent that the Society, in common with the profession at large, is in favor of such examinations. Even the colleges are forced to acknowledge the necessity of the measure. Public sentiment is too strong the other way to leave any doubt on this score. It was only regarding matters of detail on which any radical differences of opinion rested. Hence it was eminently wise, in view of the importance of the proposed bill, to defer definite action upon it until next year. In the meanwhile, the more the profession and the public know about the subject the more firmly will they be convinced of the necessity of separating the teaching and licensing powers in our medical colleges. Years ago THE RECORD advocated State examinations, and it is firmer than ever in the belief that they are imperatively demanded by every one not directly interested in the so-called prosperity of the colleges. The time must come when State examinations will be enforced in New York, as elsewhere, and until then we shall strive to be consistently earnest in the advocacy of the measure.

THE DISPENSARY QUESTION ABROAD.

MISERY, it has been said, loves company. But even if our uncharitableness does not extend to the limit of an unqualified acceptance of this dictum, we may yet find some slight consolation in our troubles by regarding those of our neighbors. It may then be brought home to us that there are people who have still greater ills to bear than we. While not actually rejoicing in their misery, we may nevertheless feel thankful that ours is not as great as it might be. Viewed in this light, it seems almost perversely pleasant to learn that the dispensary and college evils exist in other lands as well as in our own.

In a letter to the editor of *Le Médecin Praticien*, a physician of Paris bewails the condition of the majority of his confrères in that city. One-tenth of the population of Paris, comprising the nobility and the people of large fortunes, is reserved, he says, for the college professors, the great specialists, and those holding hospital appointments. Another tenth, in which are the small shopkeepers and more honest *bourgeois*, employs the mass of the profession, paying their bills at the end of the year, except in case of a political or financial panic, when their memories grow treacherous, and they simply refuse to remember anything about them. The average fee for one call among this class is three francs, or sixty cents. The remaining eight-tenths of the populace are provided for by the hospitals, dispensaries, and public clinics. One-tenth of the physicians is supported by the wealthy tenth of the population, while the remaining nine-tenths of the profession live miserably on what the other tenth of the population, comprising the more honest portion of the middle class, condescend to pay them.

Some of the causes of these evils he finds in an excessive number of free hospitals and dispensaries, in which

relief is given indiscriminately to all who apply. But there are also too many *Facultés de médecine*, and too many doctors. The remedies suggested are, among others, the exacting of proof from those applying for gratuitous medical relief that they are really deserving of charity, the abolition of some of the medical schools, and the refusal to foreigners of the right to practise without first passing an examination in France. "Create fewer, but better-educated doctors," he exclaims, "and assure to them, after the great expense incurred and labor expended in obtaining the needed education, an honorable position, worthy of so great a nation as the French." Truly, the condition of practice in Paris seems to be very like that in New York.

Similar complaints are heard in Vienna. An editorial appeared not long ago in the *Allgemeine Wiener Medicinische Zeitung*, entitled, "Ought Poor Men's Sons to study Medicine?" The question had been raised by a correspondent of another journal, who asserted that the expense of a medical education in Vienna had become so great that none but the rich could meet it. The editorial writer very properly maintains that it is bad surgery to amputate the foot because of a tight shoe, and if the cost of a medical education is so great that a young man of moderate means cannot meet it, the State should undertake to pay the professors and not allow them to take fees from the students. But the trouble, he says, lies less in the cost of procuring an education than in the precariousness of the livelihood of a young physician after his right to practise is granted. The cause of this he finds in the great number of "charitable, or rather patient-grabbing institutions, policlinics, and dispensaries." The same old story! The writer quite hopefully concludes that, sooner or later, there must be a change. All these evils will right themselves in time. We hope as much also.

THE CONTAGIOUSNESS OF PHTHISIS.

One of the evil results of the recent discoveries concerning the nature of tuberculosis has been the strengthening of previously only vaguely entertained suspicions of the contagiousness of phthisis. Since it has been conclusively shown that, with tuberculosis, there is found associated a micro-organism, many have rushed to the rash conclusion that it must of necessity be contagious. Others have even gone so far as to insist upon the strict isolation of all consumptives. But while it is true that the disease may, under certain circumstances, be communicated from the sick to those about them, every day experience teaches us that such occurrences are exceptional, and certainly far too rare to justify the cruelty of excluding such poor sufferers from grateful companionship with their fellow-creatures.

It is quite pertinent to refer here to the work done by the Collective Investigation Committee. Concerning it the *British Medical Journal* says: "A large amount of impressive evidence is forthcoming, that persons who are free from hereditary predisposition may acquire phthisis by being brought into very close personal contact, and especially from sleeping with phthisical patients; but the precise conditions under which the disease is communicated have yet to be studied. While this is perfectly true, it must also be remembered that communication is rather the exception than the rule, and that, while it suggests the precautions of good ventilation, disinfection of air and sputa, and separate beds, sufferers from this disease may be tended with comparatively little risk."

It may also be of interest in this connection to allude briefly to the results of some experiments recently undertaken by Drs. Celli and Guarneiri, and published in the *Gazetta degli Ospitali*, No. 56, 1883. These investigators were unable, after the most careful search, to find tubercle bacilli in the air of an unventilated room in which phthisical patients had been sleeping. The expired breath of these patients was likewise found to be entirely free from bacterial contamination. Nor could the specific micro-organisms be discovered in air which had been passed through the sputa of tuberculous patients, although in every case the expectorations were found to contain them in large numbers. They were also unsuccessful in attempts at inoculation with fluids impregnated with this presumably vitiated atmosphere. It would thus appear that the fears of those who lay too much stress on *a priori* reasoning and too little on the facts of common experience, are to be treated as an exaggeration of morbid apprehensiveness.

News of the Week.

The First Clinical Laboratory in Sweden was recently opened at the Upsala University.

An Awakened City.—We are very glad to see that our fraternal and admiring neighbor, the city of Philadelphia, is arousing itself into renewed activity of late. Two new medical societies have recently been, or are about to be organized, viz., a neurological society and a medico-legal society. If brotherly love continues after this among the profession of Philadelphia, we shall make our obeisance and try to negotiate an exchange of site between the New York and Philadelphia societies.

"The Analectic" is the title of a new monthly journal published by G. P. Putnam's Sons, and edited by Dr. Walter S. Wells. It is devoted to giving a summary of progress in the various departments of medicine and surgery. The selections in the first number show that the editor has an excellent idea of the needs of the general practitioner. The journal is very well printed, and is placed at a moderate price.

Our Unique and Luminous Contemporary, *The Planet*, has unfolded the Old Code flag, and is making original reports of the city medical societies. It is pressing The Record hard.

A Training School for Nurses is well under way in St. Louis.

A Bill for the Regulation of Pharmacy and the examination and licensing of all pharmacists by a State Board is now before the Ohio Legislature.

The St. Louis College of Physicians and Surgeons.—We have received from Dr. Wm. B. Hazard, Secretary of the Board of Trustees of the above institution, a letter denying as "false and slanderous" the statement which we published to the effect that there

was dissatisfaction and rebellion in the college. According to the *Weekly Medical Review*, the statements which we quoted are essentially correct, *i.e.*, eight members of the Faculty have sent in their resignations, but these have not been accepted, and the lectures are continued for the present; the students also have pledged themselves to support the eight resigning Professors, but continue their attendance at lectures for the present. We have no desire to do other than represent the truth, which we believe has now been done.

DR. STICKLER'S ARTICLE.—In the article "Subnormal Temperature in Certain Malarial Affections," in MEDICAL RECORD of January 26, 1884, read pulse 84, instead of 18, in note for September 8th of Case I. Period instead of comma after temperature, in fourth line of introduction.

MEDICAL BILLS AT ALBANY.—A bill has been introduced into the Assembly amending the charter of the College of Pharmacy of the City of New York, by allowing it to receive bequests to the extent of $300,000, and to confer the degree of "Master in Pharmacy" as a higher distinction than "Graduate of Pharmacy."

Physiology, Hygiene, and Alcohol in the Public Schools.—Senator Gilbert's bill requiring instruction to be given in the public schools of the State on the subject of physiology and hygiene, with special reference to the effects of alcohol on the human system, occupied most of the session of the Senate last Tuesday. One of the opponents of the bill offered an amendment providing that a "fearful example" should be hired for each school at $1,000 per annum. The bill in its present form exacts too much and is a foolish one. Some temperance and hygienic ideas, however, might well be instilled into the young.

CIGAR-MAKING IN TENEMENT-HOUSES.—The Court of Appeals has decided that the law forbidding the manufacture of cigars in tenement-houses in New York City is unconstitutional. The decision was based, however, upon a defect in the title. The law in question was passed by the Legislature of last year, and went into operation on October 1st. Its passage was secured largely by the influence of the trades unions, who claimed that the effect of making cigars in tenement-houses was to cheapen the price of labor. At the time when the law went into effect there were 127 apartment-houses in the city where cigars were made, and 1,964 families, consisting of 7,924 persons, were engaged in this industry.

THE PHILADELPHIA NEUROLOGICAL SOCIETY has been organized with the following officers: *President*—Dr. S. Weir Mitchell; *Vice-Presidents*—Drs. Charles K. Mills and Isaac N. Kerlin; *Secretary and Treasurer*—Dr. James Hendrie Lloyd.

VIRCHOW ON AMERICAN PORK.—Professor Virchow has recently come out in favor of the American swine. He declares that there is no danger in it—that the shutting it out from Germany is a political, not a sanitary measure.

A NEW MEDICAL COLLEGE at Quincy, Ill., is announced. There are still several cities in the United States having as many as thirty thousand inhabitants yet without a medical college.

THE SIMS MEMORIAL FUND.

To the Medical Profession and Others throughout the World:

The great achievements of Dr. J. Marion Sims call for some more lasting testimonial than obituaries and eulogies. To him medical science is indebted for much brilliant and original work, especially in gynecological surgery. Those who have been benefited by his teachings and new operations, and such as have had the direct advantage of his personal skill are among the first to recognize and acknowledge this debt.

To him is due the honor of giving the first strong impulse to the study of gynecological surgery in America.

It is believed that the medical profession everywhere, the vast number of women who owe their relief from suffering directly to him, and those who realize the benefits he first made possible, will gladly unite thus to honor the man through whose original and inventive genius such blessings have been conferred upon humanity.

At the suggestion of many friends, therefore, the subjoined committee has been organized, and it is proposed that a suitable monument be erected to his memory in the city of New York.

To this end the active co-operation of the medical profession and the many other friends of Dr. Sims throughout the world is respectfully solicited. Contributions of one dollar and upward may be forwarded to the journal which has been constituted the treasury of this fund—THE MEDICAL RECORD, New York.

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WILLIAM T. LUSK, M.D., "
WILLIAM M. POLK, M.D., "
PAUL F. MUNDÉ, M.D., "
S. O. VANDER POEL, M.D., "
FRANK P. FOSTER, M.D., "
E. S. GAILLARD, M.D., "
ALEX. J. C. SKENE, M.D., Brooklyn, N. Y.
SAMUEL D. GROSS, M.D., Philadelphia, Pa.
WILLIAM GOODELL, M.D., "
JAMES R. CHADWICK, M.D., Boston, Mass.
WILLIAM H. BYFORD, M.D., Chicago, Ill.
A. REEVES JACKSON, M. D., "
THAD. A. REAMY, M.D., Cincinnati, O.
C. D. PALMER, M.D., "
GEORGE J. ENGELMANN, M.D., St. Louis, Mo.
R. BEVERLEY COLE, M.D., San Francisco, Cal.
H. F. CAMPBELL, M.D., Augusta, Ga.
R. B. MAURY, M.D., Memphis, Tenn.
E. S. LEWIS, M.D., New Orleans, La.
J. T. SEARCY, M.D., Tuskaloosa, Ala.
R. A. KINLOCH, M.D., Charleston, S. C.
HUNTER MAGUIRE, M.D., Richmond, Va.
S. C. BUSEY, M.D., Washington, D. C.
HARVEY L. BYRD, M.D., Baltimore, Md.
W. J. HOWARD, M.D., "
D. W. YANDELL, M.D., Louisville, Ky.
SETH C. GORDON, M.D., Portland, Me.
FRANK E. BECKWITH, M.D., New Haven, Conn.
A. W. KNOX, M.D., Raleigh, N.C.
L. W. OAKLEY, M.D., Elizabeth, N. J.
E. A. WOODWARD, M.D., Brandon, Vt.
ALFRED CROSBY, M.D., Concord, N. H.
E. S. DUNSTER, M.D., Ann Arbor, Mich.
ALEX. J. STONE, St. Paul, Minn.

Other names may be added to this list from time to time.

The list of additional subscribers to the Sims fund being unavoidably crowded out of this number will appear in our next.

Reports of Societies.

MEDICAL SOCIETY OF THE STATE OF NEW YORK.

Seventy-eighth Annual Meeting, held in Albany, February 5, 6, and 7, 1884.

TUESDAY, FIRST DAY—MORNING SESSION.

THE Society convened at Geological Hall, and was called to order at 10 A.M. by the President, ALEXANDER HUTCHINS, M.D., of Brooklyn.

Prayer was offered by the REV. DR. KING.

THE PRESIDENT then delivered his

INAUGURAL ADDRESS.

He began by suggesting some reforms in the methods of society work. At present only about eight hours out of the three days could be devoted to scientific work. He advised the adoption of some authoritative method of securing papers, and suggested the announcing at each meeting of queries to be answered next meeting, and of having an "omnibus meeting," wherein individual experiences are freely and briefly discussed. The work of the State Board of Health was dwelt upon and commended. The State now has twelve hundred local sanitary boards. He advised the formation of a committee to urge the passage of the House Bill (H. R. 48), providing for the erection of a fire-proof building for the use of the Army Medical Museum and Library.

The President called attention to the subject of hospital trained nurses as an advance in exact medical methods now assuming large proportions. He suggested the advisability of making an appropriation for the support of the *Index Medicus*. He referred to and deprecated a practice, which has been growing, of county societies admitting to active membership physicians who resided in neighboring counties, and who were members of other county societies. He urged that the Society undertake the publication of an authoritative register of legally qualified practitioners in the State. He suggested that the Censors in the different districts, who have yearly the privilege of appointing a beneficiary student to one or more of the medical colleges of the State, be advised to report to the Society whom they recommend.

The President then took up the subject of medical education and discussed it at some length. He acknowledged the evils that now existed and referred to the proposed medical bill, which provided for the taking from the colleges the power of licensing. He advised great caution in endorsing so radical a measure.

The relation of the State Society to the county sccieties was discussed at length. It was a statutory provision that the county societies make their by-laws conform to those of the State Society, yet this had been done by only sixteen county societies.

The subject of the action of the Society with reference to the codes was taken up. The State Society he said now contains 139 delegates and 256 permanent members. The latter, therefore, can legitimatly control the action of the Society, and their presence gives to it more of an autonomy, and makes it less of a purely representative body. The Society has it in its power, therefore, to adopt a position not in harmony with the feelings of the majority of the profession. This it can legitimately do.

A list of members who had died during the past year was read and appropriate remarks made.

THE PRESIDENT then appointed the following Committees.

Business Committee—J. W. Moore, of Cohoes, Albany Co.; A. M. Phelps, of Chateaugay, Franklin Co.; J. H. Hunt, of Brooklyn, Kings Co.

Committee on Credentials—I. N. Goff, of Cazenovia, Madison Co.; James Chapman, of Medina, Orleans Co.; P. R. H. Sawyer, of Bedford, Westchester Co.

The Society then took a recess for the purpose of allowing members to register.

On reassembling, communications from

COUNTY SOCIETIES

were called for and the following were presented and referred.

A communication from Albany County endorsing the Bill of the Committee on Legislation of the State Medical Society witn reference to a State Board of Medical Examiners. On motion by Dr. Piffard it was made a special order for Wednesday morning, immediately after reading of the minutes.

A communication from the Medical Society of the County of New York, containing certain amendments to its by-laws. Referred to the Committee on By-Laws.

A biographical sketch of James Lenox Banks, M.D., of New York, by Dr. F. A. Burrall, of New York, was presented and referred to the Committee on Publication.

DR. WESLEY M. CARPENTER read a

BIOGRAPHICAL SKETCH OF J. MARION SIMS, M.D., LL.D.

On the 25th day of January, 1813, in Lancaster District, South Carolina, a man child was born. Only a brief account of his boyhood days has been recorded, and the history seems to be complete with the statements "that he was a good boy, but a dull one at school" (Emmet); "that he was an effeminate and gentle schoolboy of ordinary capacity, who elicited simply the love of his fellow-students" (Kinloch), and "that in his classes at school he stood fairly well, but was not precocious, and attracted no particular attention beyond his handsomely chiselled face, his delicate physique, and his genial and playful turn of mind" (Baldwin).

The first of these quotations is an autobiographical remark, and was supplemented, when read, with the comment, "he may have been wanting in application, but if the man was any indication of the boy, there could have been no time of his life when he could have been dull in any sense of the term" (Emmet).

From all that has been gathered, however, there is nothing to lead us to conclude that he was markedly different from the other boys with whom he associated, unless it be included in the clause quoted from the eulogist of his native State, "elicited simply the love of his fellow-students."

This lad passed through the ordinary vicissitudes of boyhood and early youth, experiencing pleasure and disappointment as did his comrades, engaged in the usual occupations and studies of his day, and as he merged into manhood we find him a graduate (in 1832) with the degree of Bachelor of Arts from the College of South Carolina, at Columbia. During this period of preparatory study we do not learn that he was distinguished either as a writer or a debater, or that he was acknowledged superior in general acquirements. The historian tells us that soon after receiving his college degree he became enamored with medicine, the study of which he began in the office of Dr. B. C. Jones, then a leading practitioner in his locality. He graduated from Jefferson Medical College, Philadelphia, in 1835. But little has been recorded of him as a medical student, and that little has been derived chiefly from autobiographical recitations and sketches. These show that he was a diligent, enthusiastic student, and that he entered upon his professional career with the average amount of medical education.

His experience at the outset was an epitome of that ordinarily obtained by the young practitioner of medicine, and his first case was graphically and humorously described by himself in an address delivered at the opening of the New York Post-Graduate School of Medicine, in 1882. The case was one of cholera infantum, of which he had heard but little and concerning which he knew less than he had heard, but which he attended with profound solicitude and resorted to all the known resources

for arresting the progress of the fatal disease. The history of the case terminated with the announcement made by the good old lady who had acted as nurse, and who, with her hands upon her hips and her elbows akimbo, looked straight at the young doctor through her spectacles and said, "Doctor, you may shake that baby as much as you please, but its dead." The young doctor thinking that the child had fainted, had laid it across his lap with its head hanging low, and was shaking it with the hope of reviving it by sending blood to the brain.

But nothing daunted, the young practitioner kept at work, and between the years 1840 and 1846, it has been recorded of him that he had a surgical practice which was one of the largest in his native State.

The circumstance which was utilized by the genius of the man, and which laid the corner-stone of his world-wide reputation, occurred in July, 1845. No memoir or biographical sketch will be complete without its recital.

"In July, 1845, he was called to a patient who had been thrown from a carriage and was suffering from a retroversion in consequence of the accident. During his effort to restore the uterus he placed her in what is now known as the 'knee and chest position;' but, finding that he could not fully reach the womb with the index-finger alone, he introduced the second one, with the immediate effect that he could then neither touch the cervix nor the walls of the vagina, and, to his surprise, she announced that she was entirely relieved. To this accident, and to the dilatation of the vagina when placed in a certain position after retracting the perineum with the fingers, we are indebted for the speculum bearing his name, and for the first operation by him in a case of vesico-vaginal fistula" (Dr. Emmet's Memoir).

Not long after this his health failed and he was obliged to seek recuperation in a change of climate, and he migrated to New York, where we next find his name especially identified with the operation for vesico-vaginal fistula, and with the institution with which he was so honorably connected for many years. There has been some diversity of statement concerning the earliest history of the Woman's Hospital of the State of New York, but the central figure around which all others cluster was that of the subject of this memoir. Concerning its success and the relation which he sustained to it no comment is necessary on this occasion. Its influence for good will remain a more lasting monument to his memory than either bronze or marble.

An analysis of the characteristics of this distinguished surgeon reveals to us two striking features. First, he was neither satisfied nor inflated with his successes; second, he was neither daunted nor discouraged by his failures. The first gathered about him a long line of faithful friends, for he greeted with ease, dignity, and affability the humblest, as well as the most eminent of his professional brethren, or patients; the second secured for him the faith which inspires hope; and both, sustained by his striking qualities as a surgeon, elevated him to the loftiest pinnacle in the midst of his peers.

It is not necessary in this place to refer in detail to the work which he accomplished. This has already been done by more competent writers, and, indeed, is fresh in the memory of every man who works in the same department in which he labored so brilliantly and so successfully.

"He was by nature a surgeon, and one of the most dexterous of operators. He was bold and self-reliant, never at a loss, and his ingenuity was unequalled. He was in no sense a plodder, for his mind and body were always too restless and active. He was so fertile in resource that he perfected scarcely a tithe of the brilliant conceptions passing constantly through his mind, and it was impossible to see him perform the most simple operation without learning something new" (Emmet).

As a writer he was easy, terse, comprehensive, and at times ornate. Many of those who may read this biographical sketch will remember when he addressed this Society for the last time. He then presented the healthful vigor of youth in advancing years, and his contribution on "Thomas Keith and Ovariotomy" amply illustrates the above-mentioned qualities of his literary accomplishments. The ease with which he described the details of a protracted and delicate operation, and the comprehensiveness of the description is one of the most, if not the most, complete contribution which has ever graced the transactions of this Society, and may be followed as a most complete pattern by all medical writers.

Warming with his subject, he closed his paper with a pen picture of Mr. Keith, which, for simplicity, faithfulness of description, and elegance of diction, has not been surpassed. So marvellously complete and faithful was it that, when the writer of this sketch visited Edinburgh in the following summer, he said to himself, "There is Thomas Keith," as a carriage passed him and stopped on the opposite side of St. George's Square. A gentleman alighted before the horse had scarcely come to a standstill, and skipped across the walk and up to the door. So fully convinced was I that the impression was correct that I lingered about the public square until this gentleman came from the house, and again passed me on his way to his office, only two or three blocks distant, where I soon had the pleasure of looking into those "deep blue eyes, full of benevolence and gentleness," and of hearing "what is one of the most attractive gifts of nature, whether to man or woman, a sweet, musical voice."

"Thomas Keith is fifty-two years old, six feet high, slender, and slightly stoop-shouldered. He wears a full brown beard, and his fine large head is covered with a profusion of long, silken, golden, auburn hair, which hangs down behind, gently curling over his coat collar. His forehead is broad and prominent, his nose is long and straight, slightly aquiline, beautifully symmetrical, and strongly indicative of character. He has large deep blue eyes, full of benevolence and gentleness; and he has what is one of the most attractive gifts of nature, whether to man or woman, a sweet, musical voice. He is as modest as a woman, and in character altogether lovely. He is quick in action, walks rapidly, as if he was trying to catch up with his great head, which is always in advance of his slender body. As he descends from his carriage he hurries across the sidewalk and runs up the steps, and has the door open before any of his followers are near him. He has such power of concentration that his mind is always intense on the object of its pursuit, and he hastens to accomplish it. His whole soul is wrapped up in his work, and after he has performed a difficult operation he eats and sleeps but little till he knows that his patient is out of all danger. I only wonder how a man of such high-strung, delicate, nervous organization could so long have borne up under the great and anxious work that he has done."

Why marvel that he who could command such beautiful and expressive words, so charming, so refined, and so full of glowing eulogy, should gain favor with the rich as well as with the poor, with the learned as well as with the ignorant, with the exalted as well as the humble, and should walk with graceful step the narrow way that led to the exercise of his surpassing surgical skill, "among the women of culture of the boasted aristocracy of Europe"?

"No one better than he appreciated the delicate nature of a refined woman; no one realized more than he that woman's gratitude surely followed the healing of her infirmities. We may try to estimate his loss by reviewing his qualities of head and heart. We may raise to him a monument, as elsewhere proposed, in that beautiful park of his adopted city, near the fields of his triumphs and the homes of many who loved him well, but at last, for the true valuation of his greatness, we must look to those of the gentle sex, who felt the marvellous nature of his professional work. More precious than the brass and the stone of the loftiest column is the

inscription that commemorates the virtues of the dead. No monument to the Father of American Gynecology will be complete unless the inscriptions come from the grateful heart of a refined and appreciative woman" (Kinloch).

In many respects there is a striking resemblance between the beautiful description which he gave of Mr. Keith and the personal appearance and peculiarities of the subject of this sketch.

His "quick action;" his "mind intent on the object of his pursuit" and "his haste to accomplish it;" his "anxiety after he had performed a difficult operation;" his "musical voice" and his "benevolent and gentle eyes" (when not scintillating, sparkling, and burning from a soul on fire); and his success and fame as a surgeon, all seem to speak of him, the announcement of whose death came to us like the falling of the mighty oak in the stillness of the forest.

His fame, like that of Keith, was not restricted to his native country. "The medical profession of the old world was quick to recognize his greatness, and foreign potentates showered on him their honors. No man has occupied so large a space in the history of American medicine, and his name will go down to posterity as the Father of American Gynecology" (*Medical Age.*)

"Outside of his special work he was teachable as a child; although his convictions were strong, his feelings were intense, and he was impulsive" (Wylie). He was benevolent even to self-denial. He was ingenious and bold as a surgeon and fertile with surgical suggestions. "He was a teacher in the highest sense. He was a master in his art, and a library unto himself. His virtues were such as gained for him the respect and admiration of two hemispheres" (Foster).

These, *these* were some of the facets upon the jewel that glittered in the mortal casket of J. Marion Sims.

He died of disease of the heart on the thirteenth day of November, 1883, in the seventy-first year of his age.

A communication from Ontario County concerning the Code. Made a special order, with other matters under the same head, for this evening.

A similar communication from Washington County Medical Society received a like reference.

ARMY MEDICAL MUSEUM AND LIBRARY.

DR. A. JACOBI, of New York, offered a preamble and resolution approving of an appropriation for the erection of a building to contain the records of the library and museum of the United States Army, and asking for their endorsement by the State Medical Society. They were adopted, and ordered transmitted to the Committee on Public Grounds, attested by signatures of the President and Secretary, and the Seal of the Society.

DR. VANDER POEL, of New York, called attention to the fact that a national committee had been organized to collect funds for the erection of a monument to

THE MEMORY OF J. MARION SIMS,

and asked that the members of the Society interest themselves in the laudable undertaking and forward their contributions, whether small or large, to THE MEDICAL RECORD, New York, for which due acknowledgment would be made.

DOUBLE HARE-LIP.

DR. J. P. CREVELING, of Auburn, then read a short paper on the above subject, in which he related the history of a case and described his mode of operation, which consisted in freely dissecting the cheeks from their bony connections throughout their extent, and also divided the alæ of the nose. An incision was then made upon the right side from the ala downward and including the mouth, extending to two-thirds of the depth of the lip. Another incision was made on the left side entirely through the lip, the knife being directed outward and backward, and carried to the red portion of the lip; later the flap was transfixed at the central point. A stout pin was then passed beneath the nose at the margin of the lip, and the flaps from each side brought firmly into contact and held by pins. Another was passed near the mucous margin and was secured in the same way, and two small pins were passed through the intermediate space.

The advantages claimed for the operation were that it gave an increased amount of adhering surface over that given by simple straight incision of the lip. The case was one in which the intermaxillary bone was adherent to the septum at birth, and which was removed easily. The secondary operation was performed when the girl was eleven years old.

DR. WEY, of Elmira, moved that a committee of three be appointed on the President's address. Adopted, and the following were subsequently appointed: E. Hutchinson, of Utica; G. J. Fisher, of Sing Sing, and David Webster, of New York.

DR. W. C. WEY, of Elmira, then read a paper (see p. 146) entitled

TWO UNUSUAL CASES IN OBSTETRICAL PRACTICE.

The paper was discussed by DR. F. A. CASTLE, of New York, who referred to a case of uncontrollable uterine hemorrhage, which was regarded as due to syphilitic degeneration of the placenta and uterine walls.

DR. DAVID LITTLE, of Rochester, then read a paper entitled

PROPHYLAXIS OF SUMMER COMPLAINT IN INFANTS.

He thought that over-feeding was one of the great causes of what is generally known as "summer complaint." He advised often giving infants water instead of food when the child cries. For twenty-two years he had been physician to a children's orphan asylum. Here there had always been enteric disease until the summer of 1882, when he ordered a change in diet. The infants were to be fed only every three or four hours and given plenty of water. There was no intestinal disease during that season. He had had similar experience the next year.

DR. WOODWARD, of Big Flats, said that persons ought to take into account the epidemic influences. It is very well known that in this country since 1882 the mortality among infants had been less, owing to this peculiar epidemic influence.

DR. CASTLE, of New York, said that he thought the teachings of Dr. Jacobi on the subject of infant diet had done a great deal to lessen infant mortality in the past few years.

DR. ELY, of Rochester, said that he wished to emphasize the point made by Dr. Little, that enteric trouble is largely prevented by regulating diet and giving plenty of water. He instanced a case of a child weighing fifty-six pounds using twenty-eight pounds of food a week, and losing flesh steadily from a chronic diarrhœa. The child recovered under modification of diet.

REPORT OF THE COMMITTEE ON PRIZE ESSAYS.

DR. ROCHESTER, of Buffalo, reported that two essays had been submitted. To that on "Tubercles of the Breast" was awarded the Merritt H. Cash prize, and on opening the envelope the name of Ghislani Durant, of New York, was announced as the successful competitor. The second essay was on "Consumption," and was regarded by the Committee as worthy of publication.

DR. A. G. GERSTER read a paper entitled,

NEUBER'S DEEP CANALIZATION IN AMPUTATION OF THE FEMALE BREAST.

By canalization, as devised by Neuber, of Kiel, is meant a process by which good drainage is afforded to a wound, shallow or deep, without the use of drainage-tubes. It is divided into two kinds: shallow, and deep. Shallow canalization is employed for draining exten-

sive subcutaneous cavities. It is accomplished by means of a punch, like a leather punch, by which elliptical pieces of tissue, $\frac{3}{8} \times \frac{1}{8}$ cubic inch large are cut out. A number of these are made in the skin flap, and they afford excellent drainage.

Deep canalization is intended to afford drainage to the secretions accumulating in the recesses of a deep wound. Absorbable drainage-tubes have been used for this purpose. Neuber devised the method of detaching the skin on each side of a deep wound, so as to make it movable, then turn it into the wound and fasten it at the bottom with cat-gut sutures. The cutis thus forms a funnel which drains the wound. This is called *deep canalization.*

The speaker reported three cases where he had applied this method in amputation of the female breast, with removal of the axillary glands. By sewing the skin into the axillary cavity he obtained an excellent drainage and the wounds healed by first intention. The method was simple and required no special appliances except a punch and some stout cat-gut.

Dr. O. D. Pomeroy, of New York, then read a paper entitled:

AN OPERATION FOR CORRECTINC DEFORMITY OF THE AURICLE.

The auricle was inserted in front and slightly below the meatus, giving rise to the deformity known as cat's-ear deformity of the auricle. The auricle at its faulty insertion was separated sufficiently far to allow it to be drawn up in the natural position. This incision extended backward, then directly upward in a line with the normal position of the auricle. The upper part of this incision was separated by undermining the skin sufficiently to allow the cut surface of the freed auricle to be attached, and in order that the auricle should have the normal flare the anterior border of this cut surface was pared away. Then it was attached by sutures in the anterior border of the vertical wound previously made, and with the exception of one suture at the vertex of the auricle, which was placed also posteriorly, the wound being perfectly united at the posterior border, no sutures were necessary. In front of the meatus, near the faulty insertion of the auricle, was a little cartilaginous elevation, somewhat resembling a rudimentary concha. The skin was dissected from this and the cartilage so pared off as to bring it to a level with the surrounding integument, and the flap of skin was drawn over the top and united with the wound made by the incision which separated the faulty attached auricle. The wound made by separating the auricle from its faulty attachment was closed by sutures, the skin being sufficiently undermined to allow the flaps to slide. There were twenty sutures, representing a vertical line extending upward in front of the meatus about one-half of the distance, and suddenly turning backward and passing up in the direction of the new position of the auricle. Of the twenty sutures three only were passed through the cartilage. The wound was dressed antiseptically. The healing of the parts coaptated by sutures in the skin was prompt, the wounds in the cartilage healed a little more slowly, but within five days had entirely united, without more than a moderate reaction. No pus formed in either the wound or the suture apertures. Dr. Pomeroy then referred to cases which illustrated the innocuousness of sutures in cartilage, the readiness with which wounds in cartilage heal when wounded, and closed with a reference to the literature of deformity of the auricle.

Dr. Matthewson, of Brooklyn, referred to a case in which, in 1876, he separated the attachments of the auricle, removed the skin from the corresponding part of the mastoid, drew the freshened surfaces together and obtained a very satisfactory result.

Dr. Jacobi, of New York, asked for the experience of the specialists as to whether or not these abnormalities occur complicated with anomalies in other parts of the body. He had seen quite a number and had concluded that they are only rarely so complicated.

Dr. Pomeroy said that in a certain number of cases arrest of development is found in other organs, but certainly in one-half of the cases there has been no such complication.

Dr. George B. Fowler read a paper entitled

POISONING BY POTASSIUM CHLORATE.

A brief survey was given of the history of this drug. It had been very popular for many purposes, but now its use was chiefly confined to diseases of the mouth and upper air-passages. An account of the toxicology of the drug was given. The fact that doses of four to six drachms caused serious symptoms was referred to. He related the history of a case of a young woman who had been poisoned by large doses of the potassium chlorate. The urine in this case was very peculiar. It had a specific gravity of 1.056. Under the microscope the red blood-corpuscles appeared crenated. There was a decomposition of product of the hæmoglobin, viz., methæmoglobin in the urine. This methæmoglobin, it was found, was the result of the chlorate of potassium upon the blood, and it could be produced artificially by adding a warm solution of the salt to the blood.

Dr. Fowler gave the further history of the toxicology of the drug, showing its general and local poisonous effects.

Dr. Castle, of New York, directed attention to the poisonous effects liable to occur from the local use of chlorate of potash, as in gargles, as it is a decided irritant to inflamed mucous membranes.

Dr. Daniel Lewis, of New York, remarked that poisonous effects produced by the drug came mostly from carelessness in physicians in prescribing it, and a like carelessness in druggists in handling it. If used with the care exercised in the use of potent drugs, probably the harm liable to be done by it may be avoided.

Dr. Sherwell, of Brooklyn, had recognized as one of the varieties of sore throat that produced by chlorate of potash. The remedy is said to be good for sore throat, and certainly it is, but the large pellets prepared by pharmacists were very detrimental.

Dr. Fowler referred to experiments which he had performed on rabbits, the animals dying in convulsions, and examination revealed rupture of the stomach, a fact which he thought had not been mentioned by any observer.

Dr. Piffard, of New York, offered the following resolution

WITH REFERENCE TO READING PAPERS.

Resolved, That the Business Committee shall not provide for the reading of papers by persons who are not members of the Society when members are present who desire to read them.

It was offered as an amendment to the By-Laws.

Discussion ensued, and the resolution failed to receive the requisite two-thirds vote to adopt it.

MEMBERS BY INVITATION.

W. S. Tremaine, Professor of Surgery, University of Virginia; T. P. Bailey and J. B. Stonehouse, of Albany; F. A. Anderson, of Messina, St. Lawrence Co.; M. S. Kittinger, Lockport; Peter Faling, Gasport; W. W. Seymour, Troy; S. S. Wallian, Bloomingdale, Essex Co., G. P. Clark and Alfred Mercer, Syracuse, and Samuel Morrow, Albany.

The Society then adjourned, to meet at 3 P.M.

Tuesday, First Day—Afternoon Session.

The Society was called to order by the President.

Dr. Parker, of Poughkeepsie, read a paper on

THE ESTABLISHMENT OF HOSPITALS IN SMALL CITIES.

The writer's aim was to encourage the establishment of such institutions, to give some hints as to how they should be managed, what will be the expense, etc. The primary necessity is to purchase a building, as this avoids

the perplexities incident to the fluctuating opinion of landlords. This is sometimes difficult to accomplish, on account of neighborhood prejudices against hospitals. Details were given concerning the composition and duties of the house staff, matron, board of trustees, etc. No resident pharmaceutist is kept, nor medicines, only such as are necessary to meet emergencies. This is economical. The whole expense of carrying on such hospitals as arrived at by comparison with expenses of the Fishkill and Auburn hospitals, is about two hundred dollars a bed. The inmates are under the religious instruction of the clergyman of the denomination to which they belong. This has added to the popularity of the institution.

Dr. Van De Warker, of Syracuse, read a paper entitled

A NEW METHOD OF PARTIAL EXTIRPATION OF THE CANCEROUS UTERUS.

This method, to which the author had called attention previously, consisted in amputating the cervix and such parts of the cancerous mass as were accessible, then applying chloride of zinc, as taught by Sims, in strong solution, protecting the parts by absorbent cotton and tamponing with iron cotton. Large deep sloughs could be thus brought away. Specimens of sloughs which had been obtained from cases operated upon were shown.

REPORT OF COMMITTEE ON EXPERIMENTAL MEDICINE.

Dr. J. G. Curtis, of New York, Secretary, reported that no bill was introduced into the Legislature for 1883, and the committee recommended that the Society renew its declaration of approval of scientific experiments on living animals for the benefit of the art of medicine.

Dr. L. E. Felton, of Potsdam, read a paper entitled

THE VALUE OF ELECTRICITY IN DIAGNOSIS.

The author was of the opinion that by testing the electro-irritability of muscles in individuals, some valuable points could be obtained in diagnosis. If the irritability was markedly diminished it should suggest disease. Galvanic and faradic currents could be used. The technique of applying these currents was given.

COMMITTEE ON NOMINATIONS.

From the Society at large, E. H. Parker, of Poughkeepsie; First District, Samuel Johnson; Second District, George C. Smith; Third District, F. C. Curtis; Fourth District, L. E. Felton; Fifth District, H. G. DuBois; Sixth District, W. W. Crandall; Seventh District, Darwin Colvin; Eighth District, John O. Roe.

Dr. W. C. Wey offered the following resolution, which was adopted:

Resolved, That the bill to establish a medical faculty of the University of New York be and is hereby referred to the Committee on Legislation, with instructions to report to-morrow, Wednesday, when the regular order for the report of said Committee is reached.

Dr. A. Jacobi read a paper entitled

CONGENITAL LIPOMA.

Numerous cases of congenital development of subcutaneous adipose tissue had been collected by the speaker, and notes of some of them were given. These cases formed the majority of those young children who have an enormous weight. One child whose case was reported had a hand which weighed eight pounds. Four cases in the speaker's practice were related.

In one case, that of a female infant, the left foot, the right thigh, the abdomen, and chest were the seat of lipomatous growths, and there was a vascular tumor on the right side of the chest. The child subsequently died, and was found to have hydrocephalus and peri-nephritis.

In another case there was a lipoma in the lumbar region, complicated with spina bifida.

In conclusion, the speaker said that an examination of all the cases that had been reported in the past century showed that the disease was very rare, many are complicated, some with vascular tumors or dermoid degeneration, or fusion of bone, or cartilage, or spina bifida. They are generally diffused, a few are encapsulated.

Congenital lipomata are found oftenest on the hands or feet, then in the lumbar and gluteal region. In only one case were they found on the head.

The Committee of Arrangements introduced

Dr. N. A. Powell, of Toronto, Ont., who spoke of the advantages which attended the action of a board of medical examiners in his locality.

ORBITAL CELLULITIS.

Dr. T. R. Pooley read a paper on the above subject in which he reported two cases of the idiopathic variety of the affection which terminated favorably under the systematic and persistent use of hot water and pressure bandage chiefly.

The first case was not severe, only affecting the anterior portion of the orbital tissue; in the second case the disease extended to the depths of the orbit. Dr. Pooley reviewed the leading symptoms of the disease, as chill, cephalalgia, chemosis of the lids, sometimes vomiting and epistaxis and occasionally convulsions, with protrusion of the eye, usually suddenly, attended by impairment of movements of the eye, etc. Operative interference may be required to evacuate pus, which can be done through the orbit or through the lids. An interesting feature in these cases is the change in vision, which may be due to thrombosis of the retinal vessels, both arteries and veins, and disturbance of vision may be due to amblyopia or amaurosis. The peculiar appearance of the fundus was illustrated by plates from a case which occurred in Dr. Knapp's practice.

Dr. Laurence Johnson read a paper entitled

A PLEA FOR THE PHARMACOPŒIA.

The speaker referred to the growing practice among manufacturing pharmarcists of foisting all kinds of special preparations, elixirs, pills, etc., upon the medical profession. The manufacturing pharmacist's bundles and packages and travelling agents had become a great nuisance to the physician. Besides this the practice was attended with serious harm. Some of the results were:

1. It had happened that members of the society had read papers recommending these secret proprietary medicines.

2. The use of these manufacturers' special preparations prevented our obtaining a common standard of reference by which we can compare therapeutical results.

3. In many cases the object of the manufacturers in getting medical endorsement is to finally get their preparations before the public. It is a fact that some of these preparations are now for sale at fancy stores, along with calicos and ribbons.

4. Still another evil was temptation for the physician to experiment with new or useless drugs.

5. Finally, the speaker referred to the impertinence of the manufacturers in furnishing the profession a ready-made materia medica and therapeutics. With their little books and their little pills and boxes it is as easy for a man to practise medicine as with a homœopathic family-book and medicine-chest.

The remedy for all this, the speaker said, was a simple one. Let physicians use the Pharmacopœia and the remedies officinal therein.

It was discussed by Drs. Jacobi, Mittendorf, and Castle.

REPORT OF THE COMMITTEE ON THE PRESIDENT'S ADDRESS.

Dr. E. Hutchinson, of Utica, Chairman, offered the following resolutions:

Resolved, That the President shall hereafter appoint the Business Committee in advance of the Annual Meeting, at as an early a period as practicable, for the purpose

of securing scientific work for the next annual meeting of the Society.

Resolved, That the President hereafter shall be a member *ex officio* of the Business Committee.

Resolved, That the Business Committee be empowered to suggest medical questions for general discussion.

Resolved, That in case of the occurrence of vacancies in any of the committees the President shall have power to fill such vacancies.

The report was accepted and, on motion of Dr. W. M. Carpenter, of New York, was referred to the Committee on By-Laws with the recommendation that the Committee report them to the Society as amendments to the By-Laws.

A biographical sketch of Morgan Schneider, M.D., by Dr. Alex. Ayers, of Fort Plains, was read by title.

Dr. Fisher, of Sing Sing, offered a resolution making provision for

A COMMITTEE ON NECROLOGY.

It received the same reference as the above resolutions, to the Committee on By-Laws.

Dr. Vanderveer, of Albany, then read a paper (see p. 151) on

OPERATIONS FOR CLOSURE OF THE HARD AND SOFT PALATE.

It was discussed by Drs. Fowler, of Brooklyn; E. Hutchinson, of Utica; A. G. Gerster, of New York; N. A. Powell, of Toronto, and S. B. Ward, of Albany.

Dr. David Webster, of New York, then read a paper on

SYMPATHETIC OPHTHALMIA.

[It will appear in a subsequent number of The Record.]

It was discussed by Dr. Mittendorf, who insisted strongly upon the point that an injured eye, already blind, should be removed at once, and not wait until inflammatory action has set in in the opposite eye.

Dr. Daniel Lewis read a brief paper entitled,

THE VALUE OF HORSE-HAIR AS A SUTURE.

The speaker had used horse-hair in place of cat-gut and silk in many forms of operation and with great satisfaction. In operations upon the scalp, the breast, in amputation of the fingers, and in other cases, he had used these sutures with great success. He thought it would be also useful in gynecological operations.

Dr. E. M. Moore, of Rochester, spoke of the great value of horse-hair as material for drainage. It was non-irritating and it could be removed gradually hair by hair.

The following papers were read by title and referred to the Committee on Publication: "Dysmenorrhœa, Its Treatment by Dilatation," by Dr. W. W. Potter, of Buffalo; "Two Cases of Rupture of the Heart," with pathological specimens, by T. H. Squire, Elmira; "Biographical Sketch of James Rushmore Wood, M.D., LL.D.," by Dr. Frederick S. Dennis; "Biographical Sketch of the late Dr. G. W. Bradford," by Dr. E. C. Green, Homer; "Biographical Sketch of the late Dr. J. F. Jenkins," by Dr. G. J. Fisher, of Sing Sing; "The Medical Society of the State of New York in its Relation to Science," by the late Dr. E. Harris, of Albany; "Biographical Sketch of Dr. Jas. S. Bailey," by Dr. F. C. Curtis, of Albany.

MEMBERS BY INVITATION.

T. Z. Gibbs, of Fort Ann; M. S. Kittinger, of Lockport, and Lemuel Cross; M. D. Mann, of Buffalo; L. A. Stimson, of New York; Jas. C. Cooley, of Luzerne; Lorenzo Hale, of Albany; S. G. Delamater, of Schenectady; W. S. Layman, and H. F. Kingsley, of Schoharie; J. C. Harmon, of Rensselaer; J. A. Hall, of Green Island; F. Townsend, D. H. Cook, of Albany; R. H. Sabin, W. B. Sabin, A.T. Van Vranken, and G. E. Lyon, of West Troy; Isaac D. Zouche, W. L. Schnetter, E. A. Bartlett, H. Bendell, and O. D. Ball, of Albany; W. H. Towsley, of Richland, and Maurice J. Levi, of Albany; Cyrus S. Merrill, F. L. Classen, David Fleischman, Mary Du Bois, Lewis Balch, John Thompson, J. F. Barker, F. W. Nellis, W. J. Nellis, H. S. Case, G. L. Ullman, of Albany; J. D. Lomax, of Troy; W. M. McLaury, of New York; H. B. Allen, of Baldwinsville.

The Society then adjourned to meet at 8 o'clock.

TUESDAY, FIRST DAY—EVENING SESSION.

THE NEW CODE SUSTAINED BY A MAJORITY VOTE.

The Society being called to order,

Dr. Piffard, of New York, moved that the resolution of the Ontario County Medical Society, endorsing the Old Code, be laid upon the table, and that that Society be informed that any By-Laws adopted by the county societies which conflict with those of the State Society are not legal or binding. The motion was carried.

Dr. Baker, of Niagara County, read some resolutions from his County Medical Society, to the effect that any change in the Code of Ethics of the State Medical Society ought not to be made until some action had been first taken by the American Medical Association. These resolutions were received and entered on the minutes.

Dr. Didama's resolution abolishing the New Code was then read.

Dr. Rochester moved the adoption of this resolution. He then made a temperate speech advocating harmonious action for the sake of preserving the Society.

Dr. Didama read some remarks advocating the passage of his resolution. He spoke of the peaceful condition of the Society before the New Code was adopted, and of the change which had taken place since then. He said that the New Code party had brought the Society into disrepute throughout the English-speaking world; they had cut off the Society from representation in the American Medical Association.

Dr. Roosa, of New York, said that it was the intention of the New Code party, which was in the majority in the State, to let the vote be taken without discussion. To-night, however, a new element had been brought up in the discussion. The Old Code party had held up a threat that if the Old Code were not re-enacted its adherents would secede. The speaker said that the representatives of the New Code had received letters from distinguished men in nearly every State, which urged New York to stand by its position, and assuring them if they did that they would soon receive support from other places.

Dr. Moore, of Rochester, read an editorial from the *Journal of the American Medical Association*, in which the view was held that the action of the New York State Society in enacting a new code was an act of secession against the American Medical Association.

The result of the vote was 105 ayes to 124 nays, which sustained the action of the Society taken in 1882 and maintained in 1883.

Dr. Roosa then brought up the subject of his declaratory resolution, or no code.

Dr. A. Jacobi moved that it be read and adopted in place of the present New Code.

Dr. C. R. Agnew gave a history of his action in connection with the adoption of the New Code, saying that in framing it the committee only made the by-laws in accord with the laws of the State.

He believed that the Society would yet be represented in the American Medical Association, but it could never be expected that the State Society should send delegates in humiliation and repentance and in violation of the statute law of the State to that Association.

Dr. Baker, of Niagara County, made a speech in advocacy of the National Code, repeating some of the older arguments.

The ayes and nays were called for.

On motion, the Society adjourned.

WEDNESDAY, SECOND DAY—MORNING SESSION.

The Society was called to order at 10 A.M., by the President.

Prayer was offered by REV. WALTER D. NICHOLS, D.D.

The Committee of Arrangements introduced Dr. N. S. Babbitt, of North Adams, delegate from the Massachusetts Medical Society.

The

TREASURER'S REPORT,

presented by DR. C. H. PORTER, of Albany, Treasurer, showed a balance in the treasury of $1,462.92. The report was received and referred to an Auditing Committee, consisting of Dr. A. M. Jacobus, and Dr. A. N. Bell. The Committee subsequently reported that they had examined the accounts of the Treasurer and had found them correct.

The Committee appointed to endeavor to secure a room for the Society in the new capitol building reported that suitable accommodations could not at present be secured. Ordered entered upon the minutes.

The Committee on Republication of the Transactions of the Society reported, through DR. F. C. CURTIS, of Albany, that the republication is not at present desirable.

Report received and the committee discharged.

DR. WEY, of Elmira, for the

COMMITTEE ON BY-LAWS,

read a report. He stated that in many cases the by-laws of the county medical societies were badly drawn, and were not in accordance with the laws of the State or the By-Laws of the State Society. The Committee gave a list of only about twelve county societies whose by-laws were correct. A resolution was offered instructing the Committee to draw up and have printed a scheme of by-laws to be distributed to the county societies for their instruction.

COMMITTEE ON PRIZE ESSAYS.

DR. W. S. ELY said that, by some mistake, the report of the Committee already submitted to the Society was signed by Dr. Moore, of Rochester, who is not a member of the Committee, and not signed by Dr. Potter, of Buffalo, who is a member of the Committee. At his request the report was referred back to the Committee for further report.

DR. A. JACOBI read the report of the

COMMITTEE ON PREVENTION OF CRUELTY TO CHILDREN.

He referred to the near completion in New York City of the Hospital for Contagious Diseases. He urged the passage of a resolution appointing a committee of three to help secure the passage of a law forbidding the employment in factories of sickly children, especially those suffering from anæmia, scrofula, phthisis, bronchitis, etc.

The report was adopted.

DR. PIFFARD, of New York, offered the following resolution, which was adopted:

Resolved, That the Secretary be authorized to have printed a sufficient number of copies of the proceedings of this Society (not "Transactions") to supply every member of county societies in affiliation with this Society, and that the Secretary be instructed to send a copy to each member of the several county medical societies,

DR. E. V. STODDARD read the report of the

COMMITTEE ON HYGIENE.

This described the work of the State Board of Health. It urged the use of more careful and energetic measures for quarantining cases of measles and scarlatina, especially in connection with the schools. The local sanitary boards were also urged to be more attentive in this respect.

To the report was added the report of the Committee on Hygiene of the Medical Society of the County of New York, containing papers by Drs. S. O. Vander Poel, E. G. Janeway, Stephen Smith, and O. D. Pomeroy.

The report was adopted.

DR. F. R. STURGIS, for the Committee on Legislation, read a report covering the subject of the

PROPOSED NEW MEDICAL LAW.

A bill was read which was substantially like that known as the Erie County bill, and it was recommended to the Society for endorsement.

DR. STURGIS also, as a supplementary report, read another bill, which had been drawn up by those interested in the colleges. It differed from the bill recommended by the Society chiefly: 1, in that it appointed a medical faculty without reference to sects; 2, in that this medical faculty was not given a licensing power, but was simply allowed to attend the examinations of medical students by their professors, and take back a report to the Regents of the University of the State of New York.

DR. HOPKINS, of Buffalo, made a brief speech, urging that the Society endorse the bill.

DR. A. L. LOOMIS then took the floor and made an elaborate and forcible argument against the Committee's bill. The points which he made against it were: that it appointed a mixed board and thus recognized homœopathy and eclecticism; that it was probable that the board would be subject to political influences; that difficulties would be had in finding proper men for the faculty; that it would injure the colleges and the educational interests in the State. Dr. Loomis made an eloquent appeal for harmonious feeling between the colleges and the profession.

DR. D. B. ST. JOHN ROOSA followed in reply, and made an argument which was listened to with great attention, and was frequently interrupted by applause. Dr. Roosa spoke in the warmest terms of the high standing and valuable work of the medical colleges. They had been most essential in raising the status of the American medical profession. He thought that the time had come now, however, when, unless something was done, these institutions would undo the good they had already accomplished. He stated that the bill advocated by Dr. Loomis really eviscerated the committee's bill, and would be worse that none at all. The college bill provided for an unmixed board, but it was very well known that with such a provision the bill could not have the slightest chance of passing. He thought that there would be no more difficulty in getting nine good men as examiners, than the colleges had in getting their professors. He stigmatized the medical faculty constituted by the college bill as being nothing more than a "tea-drinking convention." It seemed as though the advocates of this bill were seeking to kill all legislation in order to protect their own interests. The speaker excited much applause by referring to the fact that he had met, before the Legislative Committee, Dr. Loomis and Dr. Flint shoulder to shoulder with Dr. R. V. Pierce and Dr. Gunn. The function of the medical colleges, said Dr. Roosa, was to teach; the licensing should belong to a responsible and disinterested body, that is to the State.

DR. H. G. PIFFARD reviewed the history of the medical colleges of the State and of the legislation regarding the power of licensing. He then took up the two bills reported by the committee and criticised several points in them. Dr. Piffard was opposed to having a mixed board. He did not like either of the bills, and hoped that a committee would be appointed to arrange a new one.

After some general comments on the subject by Drs. Jacobi, Dalton, Sturgis, Agnew, and others, it was made a special order for 3 P.M.

On motion the bill of expenses of the Committee on Legislation was referred to a committee of three for auditing.

MEMBERS BY INVITATION.

T. W. Nellis and W. J. Nellis, of Albany; A. M. Smith, of Williamstown, Mass.; H. E. Allison, of Waterloo, N. Y., and M. J. Roberts, of New York.

The Society then adjourned to meet at 3 P.M.

WEDNESDAY, SECOND DAY—AFTERNOON SESSION.

The Society was called to order at 3 P.M. by THE PRESIDENT, the special order from the morning session being before the Society.

DR. J. W. HOWE said that he opposed the medical bill of the committee. He believed that it had been drawn up hastily, and without consultation with the colleges or the representative men in the State. He believed that there should be a conference upon the matter. The speaker thought that the State Medical Society could better take charge of this matter, and to that end he offered a resolution providing that the State Society appoint a commission to attend and take cognizance of the examinations at the medical colleges, and report to the Society.

DR. J. C. DALTON seconded Dr. Howe's resolution. He said that he did so because something of this kind had been in his mind before. He was entirely opposed to any legislative action at present. The committee's bill separated the power of granting diplomas and licenses, but he did not see how this could do any good. The proposed Board of Examiners would be paid by the fees of those applying for license and would be under the same stress to grant licenses as the faculties of colleges are. He thought that the teachers in the colleges were much more competent to say how fit the students were for receiving licenses. In some colleges, at least, no work received more conscientious attention than that of examining the students. The speaker then criticised the mixed character of the proposed Board. If created, it would oblige graduates in regular colleges to get one vote or more from a homœopath or eclectic.

DR. HOPKINS offered a resolution that the Society recommend, as a general measure, the creation of a Board of State Medical Examiners.

DR. VANDER POEL moved as a substitute that the following gentlemen be appointed a committee to whom the whole matter be referred with power: Drs. Loomis, Roosa, Sturges, Vandeveer, A. E. M. Moore, Austin Flint, Jr., and Perkins.

DR. JACOBI suggested that a larger expression of opinion should be invited from members who had not spoken.

DR. MOORE, of Oneida County, said that action ought not to be taken at present upon the matter. The County Societies had not yet given the matter consideration.

DR. HOWE'S resolution was, by vote of 31 to 30, laid on the table.

DR. ROCHESTER said that he believed in a State Medical Board, but urged postponement for a year.

On an amendment to Dr. Hopkins' resolution, offered by DR. PIFFARD, it was finally voted to refer the whole matter to a committee composed of the Legislative Committee and Drs. Loomis, Vandeveer, and J. G. Curtis.

THE COMMITTEE ON PRIZE ESSAYS.

DR. ROCHESTER, of Buffalo, made a majority report recommending the awarding of the Merritt H. Cash Prize to the author of an "Essay on Tubercles of the Breast."

DR. W. W. POTTER, of Buffalo, read a minority report, in which he opposed awarding the prize to this essay because, though an excellent one, it contained little original matter.

DR. S. O. VANDER POEL, of New York, said that the same essay had been offered before the New York County Medical Society and had been rejected. He therefore moved that the minority report be adopted.

The motion was carried and the prize not awarded.

DR. W. F. MITTENDORF, of New York City, read a paper entitled

FOERSTER'S METHOD OF RIPENING CATARACT.

[It will appear in full in THE RECORD.]

DR. W. F. SHEEHAN, of Rochester, read a paper entitled

HOUSE SANITATION AS IT IS AND AS IT SHOULD BE.

The dangers of ground-air in the cellars, and the relations of it and sewer-gas to diphtheria, typhoid fever, and other zymotic diseases were dwelt upon. A method of properly providing against this was described.

DR. A. N. BELL took grounds against the speaker in his recommendation to have cellars bricked and cemented. He also advised ventilating tubes to be carried up straight without ending in a goose-neck.

The following papers were read by title: "On Primary Drainage and Secondary Drainage," by Dr. Geo. B. Fowler; "On Spontaneous Pyæmia," by Dr. J. B. Todd; "Care and Preservation of Medical Manuscripts," by Dr. Geo. J. Fisher, of Sing Sing; "On Strangulated Hernia," by Dr. J. Chapman, of Medina; "Note on the Treatment of the Derangements of the Digestive Organs," by Dr. F. A. Castle, of New York; "On Hay Fever," by Dr. J. O. Roe, of Rochester; "On Dysmenorrhœa and its Treatment by Dilatation," by Dr. W. W. Potter, of Buffalo; "Biographical Sketch of J. G. Snell, M.D., of Montgomery County," by Dr. Wm. H. Robb, of Amsterdam.

DR. MILTON J. ROBERTS, of New York, read a paper entitled

THE MECHANICAL TREATMENT OF HIP-JOINT DISEASE.

[This paper will appear in full in THE RECORD.]

DR. GEO. B. FOWLER, of Brooklyn, said that the views which Dr. Roberts presented corroborated the opinions which he had drawn from his own experience. He moved that Dr. Roberts' paper be referred to the Committee on Publication.

DR. A. M. PHELPS, of Chateaugay, read a paper on

SYNOVITIS OF THE KNEE- AND ANKLE-JOINTS,

and exhibited a variety of apparatus for treating the disease and preventing deformity. Sayre's, Stillman's, and his own apparatus were described, the latter of which were notable for their simplicity of construction.

REPORT OF COMMITTEE ON BY-LAWS.

DR. WEY further reported on the report of the Committee on the President's Address, adversely with reference to the suggestion concerning the appointment of the Business Committee in advance; adversely on the resolution making provision for the election of a committee on necrology; favorably to authorizing the Treasurer and Secretary to act temporarily as the Committee on Credentials during the evening immediately preceding the first morning session of the annual meeting, until the regular Committee is appointed by the President.

DR. C. L. DANA, of New York, read a paper entitled

MORBID DROWSINESS AND SOMNOLENCE.

He had collected from medical literature and his own experience sixty cases of morbid somnolence. These were cases where the condition was not due to organic disease or insanity, but was a neurosis.

The various sleeping states he divided into three classes: One was of epileptoid origin; here the attacks of somnolence took the place of convulsive or *petit mal* seizures. Another class of patients were plainly hysterical; in some of these the sleeping states were of a mesmeric kind. A third class included those forms of functional morbid somnolence not to be classed with epilepsy, hysteria, or mesmerism; of this character he reported several cases.

A sketch of the etiology, symptoms, course, prognosis, and treatment was given.

MEMBERS BY INVITATION.

C. Devol and D. C. Case, P. J. Keegan, A. B. Huested, and A. Fowler, of Albany; Wm. H. Robb, Amsterdam, and Anthony TenEyck, of Defriestville.

The Society then adjourned, to meet in the Assembly Chamber at 8 o'clock, to listen to the Anniversary Address.

WEDNESDAY, SECOND DAY—EVENING SESSION.

The Society met, pursuant to adjournment, in the Assembly Chamber at 8 P.M., and was called to order by DR. H. G. P. SPENCER, of Watertown, Vice-President.

THE PRESIDENT then delivered

THE ANNIVERSARY ADDRESS

(see p. 144), which was listened to by a large and appreciative audience, and for which, on motion by Dr. Robert Frasier, of Camden, he received a vote of thanks.

After the delivery of the address the members adjourned to the banquet, where eatables were discussed and speeches made up to a late hour in the evening.

THURSDAY, THIRD DAY—MORNING SESSION.

The Society was called to order by THE PRESIDENT, after which prayer was offered by the REV. HORACE STANTON, D.D.

The Committee on Publication reported that one thousand copies of the "Transactions" were printed at an expense of ninety cents apiece for members.

A resolution was adopted authorizing the Secretary to wrap and send by mail the "Proceedings" to members of the county medical societies, according to the list in volume of "Transactions," 1883.

THE MANAGEMENT OF FACE PRESENTATIONS.

DR. E. L. PARTRIDGE, of New York, read a paper on the above subject, in which he advocated the conversion of a face presentation into vertex by the hand of the attendant. Several cases were reported in which this had been done. The operation consists in chloroforming the patient and introducing the hand into the vagina. Pass two fingers over the occiput, press firmly against it, and draw downward. Flexion of the head will quickly take place. Circumstances especially favorable to the operation are head movable at brim, or easily made so by lifting cervix upward, and nearly dilated os and unbroken membranes. In most cases of labor a period is reached when these conditions are found.

IS CONVERSION OF FACE-PRESENTATION INTO VERTEX DESIRABLE?

Statistics show that it is. Some cases show a tendency to return to the face after the vertex has been brought down; therefore watch each case, in order to early observe such tendency, and, if observed, apply forceps to engage the head; then leave the case to nature. If it should happen that all our efforts are fruitless, the case is not further complicated by them. We simply have the original condition of affairs. Our methods are either uncertain or dangerous; if undertaken when the cervix is undilated, it may be lacerated, or if the operation is successful, we are liable to return of the face presentation during the time before labor can be completed. If the face has descended into the pelvis and cannot be lifted upward, there is danger that brow presentation may be produced by manipulation. The method of Seliatz is ingenious, but too uncertain, as the change is attempted by manipulations through the thick abdominal and uterine walls.

DR. A. JACOBI, of New York, read a paper on

ARSENIC AND DIGITALIS IN PHTHISIS,

which will appear in a future number of THE MEDICAL RECORD.

The paper was discussed by DR. F. R. S. DRAKE, of New York.

THE REPORT OF THE NOMINATING COMMITTEE

was next made and adopted as follows:

For President—B. F. Sherman, Ogdensburg; *Vice-President*—P. R. H. Sawyer, of Bedford; *Secretary*—Wm. Manlius Smith, Syracuse; *Treasurer*—Charles H. Porter, Albany; *Censors*—Southern District, F. A. Castle, G. H. Fox, David Webster; Eastern District, E. D. Ferguson, N. L. Snow, Le Roy McLean; Middle District, A. Churchill, J. K. Chamberlyne, Robert Frazier; Western District, T. F. Rochester, B. L. Hovey, Theodore Demon; *Committee of Arrangements*—S. B. Ward, Albany; W. S. Ely, Rochester; E. L. Partridge, New York; *Committee on By-Laws*—W. C. Wey, Elmira; A. Hutchins, Brooklyn; William Manlius Smith, Syracuse; *Committee on Hygiene*—E. V. Stoddard, Rochester; Caleb Green, Homer; E. Hutchinson, Utica; W. H. Bailey, Albany; A. N. Bell, New York; G. J. Fisher, Sing Sing; W. F. Sheehan, Rochester; *Committee on Legislation*—H. G. Piffard, Daniel Lewis, New York; H. R. Hopkins, Buffalo; *Committee on Medical Ethics*—A. Jacobi, New York; A. Matthewson, Brooklyn; J. W. Whitbeck, Rochester; *Committee on Prize Essays*—W. W. Potter, Buffalo; A. Hutchins, Brooklyn; W. S. Ely, Rochester; *Committee on Publication*—W. M. Smith, Syracuse; C. H. Porter, Albany; H. D. Didama, Syracuse; *Censor College of Medicine Syracuse University*, J. P. Creveling.

PERMANENT MEMBERS.

First District—Daniel Lewis, A. V. B. Lockrow, V. P. Gibney, A. McLane Hamilton, of New York; S. Sherwell, of Brooklyn. *Second District*—A. Huhne, Ulster; J. Q. Adams, Putnam. *Third District*—M. L. Bates, Columbia; S. S. Cartwright, Delaware. *Fourth District*—L. C. Dodge, Clinton; J. E. Burdick, Fulton. *Fifth District*—H. W. Carpenter, Madison. *Sixth District*—M. J. Baker, Steuben; M. D. Spencer, Chenango. *Seventh District*—A. Mercer, Onandago. *Eighth District*—C. S. Starr, Monroe; M. S. Kittinger, Niagara.

Honorary Member—W. G. Bronson, Connecticut.

DELEGATES TO INTERNATIONAL MEDICAL CONGRESS AT COPENHAGEN.

Drs. S. O. Vander Poel, A. M. Phelps, J. O. Roe, A. Vandeveer, J. P. Creveling, W. H. Bailey, A. Hutchins, A. Jacobi, Geo. F. Shrady.

DELEGATES TO STATE MEDICAL SOCIETIES.

Massachusetts—G. C. Monroe, St. Lawrence; G. G. Hopkins, Kings; Henry March, Albany. *Pennsylvania*—C. L. Stiles. *Vermont*—James L. Little; Joseph Levi. *Connecticut*—M. L. Bates. *Canadian Medical Association*—L. E. Felton, C. M. Wilson, Conant Sawyer, F. C. Curtis, D. V. O'Leary. *British Medical Association*—Fordyce Barker, Harvey Jewett. *Ontario Medical Association*—H. R. Hopkins, Lucien Howe.

The officers were elected by affirmative ballot cast by the Secretary.

DR. S. B. WARD moved a vote of thanks to the State Agricultural Society for use of hall.

DR. W. M. CARPENTER moved a vote of thanks to the President for the able, dignified, and impartial manner in which he discharged his duties.

The President responded.

DR. B. F. SHERMAN moved a vote of thanks to Committee of Arrangements and a similar motion was made by DR. A. JACOBI for the Business Committee, after which the Society adjourned.

SURGEON-GENERAL OF THE NAVY.—The term of office of Surgeon-General Wales as Chief of the Bureau of Medicine and Surgery expired at noon January 26th. Mr. David Carrigan, chief clerk of the bureau, performs the duties of the office until the appointment of a Surgeon-General.

Correspondence.

CONCERNING DIASTASE IN A MALT EXTRACT.

To the Editor of The Medical Record.

Sir: In a recent article in The Record I called attention to the large amount of diastase in a certain malt extract, and in so doing decried the preparations of other manufacturers. In common with other physicians and chemists, whose reports will soon be made public, I was deceived by the specious argument and illogical test of a commercial agent. I was unwilling to seem to be even distrustful of the representative of a large manufacturing pharmacist. Elaborate experimentation, and the exhaustive analyses of Professors Chittenden, Haines, Cole, Harrington, Prescott, and others, together with personal communications from professional men in different parts of the country, convince me of my error. I find that samples of the commended article, bought in open market, do not at all correspond with the samples which the agent used in my office, and which he affirmed he had bought out of stock. This statement of his I believe to be untrue, as the general run of his malt is deficient in diastatic action, and at least one hundred per cent. less powerful than maltine, which I described as inert. I am very glad to confess my error, and those who were equally deceived with myself will understand how it arose.

Horatio R. Bigelow, M.D.

LEAD-POISONING FROM A NEWSPAPER PRESCRIPTION.

To the Editor of The Medical Record.

Sir: On December 7, 1883, I admitted to this institution the following case: Peter B——, aged forty-two; widower; laborer; complaining of cough, debility, and severe pains in the abdomen and extremities. Six months since he began to lose appetite and grow weak. Debility progressed until one month before admission, when he began to cough and was obliged to cease work. Reading in a paper that "sugar of lead" was good for his disease he purchased some of the drug and took, as directed by the paper, "as much as he could lay on the point of his knife," three times a day for nearly three weeks. His knife was a large one and he must have taken several grains per diem. On admission he presented the physical signs and symptoms of phthisis. He also suffered from severe abdominal pains or "cramps," and pains in shins. There was partial extensor paralysis and blue-black, foul gums and teeth. Abdomen tense and very tender. The abdominal recti refused to respond to electrical stimulation at first. He had had no stool for several days. A hot water enema was administered and immediately regurgitated. He was then thoroughly purged with salines followed by the systematic use of opium, electricity, and potassium iodide. At present he is slowly gaining in strength, and the symptoms of lead toxæmia are gradually disappearing. The debility incident to pneumonic disease will probably prevent complete recovery.

I do not advance the above as an exceptional case. It is scarcely probable that any physician of experience has failed to meet disease induced or aggravated by treatment recommended in the popular press of the day. The injury done by so-called "patent" medicines is sufficiently notorious; but when the newspapers recommend the indiscriminate use of powerful poisons, it is certainly matter for regret that there is no restraining legislation.

Louis C. Wood, M.D.

Hart's Island Hospital, January 21, 1884.

A PLAN TO RELIEVE THE FREE CLINIC ABUSE.

To the Editor of The Medical Record.

Sir: I have read with interest the articles which have recently appeared in The Medical Record "commenting upon the free clinics" and "free dispensary system." That these charities are grossly abused is a fact which needs no elucidation. The question of the hour is, How shall this abuse be prevented? I have the following plan to suggest, viz.: Let those who are interested form an association, divide the work, canvass the city, secure the co-operation of every doctor on Manhattan Island, and as many of the neighboring physicians as possible. When this is accomplished, let the trustees, as managers of every institution where free medical or surgical aid is given, be requested to co-operate with "The Charity Organization Society." That society undertakes to investigate all cases applying for aid. The plan is *very simple*. Pat Flynn applies at a dispensary for medical or surgical aid: his name, age, occupation, and address are taken; he is relieved for a time, but his name is sent to the nearest district office of "The Charity Organization Society," with a request to investigate. If they find him worthy of relief, he continues to receive it; but if they find that he can pay *even a moderate fee*, notice is at once sent to every dispensary in the city, and thenceforth Pat Flynn must pay for his treatment. This method necessitates a vast amount of work and some expense; but if every practitioner in New York City will contribute *two dollars per year* for *five years*, I feel sure that the desired result will be attained. Will the profession co-operate?

Yours very truly,

J. L. Barton, M.D.

436 Lexington Avenue, New York,
January 12, 1884.

Obituary.

ELISHA HARRIS, A.M., M.D.

Few members of the medical profession were better known or more widely esteemed than Dr. Elisha Harris, who died from peritonitis, at Albany, on February 1st, at the age of sixty.

Dr. Harris was born at Westminster, Vt., in 1824. He received a common school education, and after several years of teaching graduated in medicine at the College of Physicians and Surgeons in 1849. Lafayette College subsequently conferred upon him the honorary title of Master of Arts. Soon after beginning the practice of medicine he married, in the autumn of 1849, the only daughter of the Rev. Dr. Josiah B. Andrews. She died in 1867, leaving no children, and from the date of her death Dr. Harris gave all his time to the public service in various capacities.

Dr. Harris' first entrance into the public service was in 1855, when he was made Superintendent and Physician-in-Chief of the Quarantine Hospitals at Staten Island. To him was intrusted, in 1859, the construction of a floating hospital to be anchored below the Narrows, facing the open sea. His mastery of the sanitary problems connected with the New York quarantine station resulted in the establishment of the present system of quarantine defences in all their important details. When the war of the rebellion broke out, Dr. Harris, in connection with the Rev. Dr. Henry C. Bellows and others, became interested in the National Sanitary Commission, and he was for nearly five years a Sanitary Commissioner. The railway ambulance was exclusively his device, and proved of such value that, in 1867, at the Exposition Universelle, in Paris, he was awarded a bronze medal. A silver medal was given him for the same ambulance by the Société des Secours aux Blessés. The

ambulance was also adopted and used by the Prussian army in the Franco-Prussian war. The system of a national record of the deaths and burials of soldiers was also devised by him and adopted by the War Department. At the close of the rebellion he was intrusted with the collection of the sanitary history of the war, which was published in several volumes, entitled "Sanitary Memoirs of the War."

At the same time he again turned his attention to the sanitary condition and needs of this city. As a voluntary work, he supervised a sanitary survey of the city. The results of this were published by the Appletons, as a report of the sanitary condition and wants of the city. It was a work of great value to sanitary science, as well as to the metropolis itself. He entered the service of the Metropolitan Board of Health three days after its organization, March 5, 1866, the same day on which the Secretary of the present board, Col. Emmons Clark, received his original appointment. His associates on the board were Drs. James Crane, Willard Parker, John O. Stone, John Swinburne, and Jackson S. Schultz. The ex-officio members were Thomas C. Acton, John G. Bergen, Joseph S. Bosworth, and Benjamin F. Manierre. Dr. Harris then held the position of Registrar of Records. In 1869, when E. B. Dalton, the first Sanitary Superintendent of the city, resigned, Dr. Harris was appointed as his successor, but was legislated out of office in 1870, with the adoption of the new charter. In 1873 he was appointed Registrar of Vital Statistics, and he retained that position until January, 1876, when he was again virtually legislated out of office, the Board of Estimate and Apportionment having consolidated the Bureau of Vital Statistics and the Sanitary Bureau, and extinguished the office of Registrar of Records, whose work is now performed by the Sanitary Superintendent and his assistants. When Dr. Harris was first appointed to the office of Registrar, in 1866, to succeed F. I. A. Boole, the records were in a very bad condition and wholly unreliable. Order was created out of chaos, and the system now in use was devised by him.

One of the greatest works for the benefit of the people of the city in which Dr. Harris was engaged was the first thorough tenement-house survey, known as the Sanitary Survey of 1869. It was so complete that the blanks filled in by the Inspectors were bound, and they are to-day preserved and esteemed as one of the most precious series of records in the possession of the department. The immediate result of this work was to render tenement-house life less hideous, by making ventilation of dark bedrooms compulsory. By Dr. Harris' suggestion or direction over fifty thousand windows for ventilating purposes were put in such rooms. Dr. Harris was also actively engaged in fighting the epidemic of relapsing fever in 1870, when, there being no hospitals for contagious diseases, a thorough system of disinfecting and fumigation was made necessary. To him also is due much credit for taking the first step in establishing the system of public vaccination. This was in 1869, and about fifty physicians in that year vaccinated between fifty thousand and sixty thousand persons. He also did efficient work during the cholera epidemic of 1866–67, though he modestly allowed the executive honors of that fight to rest with Dr. Dalton, whose most efficient aid he was at the time. Dr. Harris' uniform politeness, courtesy, and urbanity while connected with the Health Department won for him the title of "the Chesterfield of the department."

When, in 1880, the Legislature organized the State Board of Health, Dr. Harris was made one of the three Commissioners, and he was unanimously elected Secretary and State Superintendent of Vital Statistics. These positions he held at the time of his death. The organization of the entire service was due in great part to his ability as an executive officer. He was also instrumental in the organization of the American Public Health Association, of which he was for several years both Secretary and President. Into the work of this association he entered with his whole soul, devoting all the time he could spare to the advancement of its aims and interests.

Dr. Harris was also widely known as a philanthropist. He was for many years identified with the Prison Association, for the care and reformation of discharged convicts.

Dr. Harris was also identified with the Association for Improving the Condition of the Poor, and was a member of the County Medical Society, the New York Academy of Medicine, the Physicians' Mutual Aid Association, the Society for the Relief of Orphans and Widows of Medical Men, and the Public Health Association of New York. He was also an active or honorary member of various other associations and societies in this country and Europe. He was consulting physician to the country branch of the Nursery and Child's Hospital. He was a voluminous writer of works on sanitary and philanthropic subjects, and also on questions relating to vital statistics.

Army News.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from January 26, 1884, to February 2, 1884.

ALEXANDER, CHARLES T., Major and Surgeon. So much of par. 7, S. O. 211, September 14, 1883, as directs him to report in person to the Commanding General Department of the Missouri for duty, is revoked, and he will, upon the expiration of his present leave of absence, proceed to St. Louis, Mo., and assume duty as Attending Surgeon and Examiner of Recruits in that city. S. O. 21, par. 1, A. G. O., January 25, 1884.

ELBREY, FREDERICK W., Captain and Assistant Surgeon. Present leave of absence extended six months. S. O. 24, par. 9, A. G. O., January 25, 1884.

Medical Items.

CONTAGIOUS DISEASES—WEEKLY STATEMENT.—Report of cases and deaths from contagious diseases reported to the Sanitary Bureau, Health Department, for the week ending February 2, 1884:

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Cases.								
January 26, 1884.....	0	4	81	7	43	41	0	0
February 2, 1884	2	11	95	1	39	45	1	0
Deaths.								
January 26, 1884.....	1	4	10	4	9	21	0	0
February 2, 1884.....	0	4	11	2	9	11	0	0

BICHLORIDE AS AN ANTISEPTIC.—The combination of bichloride of mercury with chloride of sodium, which makes the antiseptic permanent, is now the one which is being used in our hospitals. This combination, we believe, was first suggested by C. Amend, a chemist of this city.

DR. LYMAN'S ARTICLE ON APOPLEXY.—Dr. W. J. Brandt, of Brooklyn, N. Y., writes: "In perusing Dr. Lyman's article on 'Apoplexy' in THE MEDICAL RECORD of January 12th, I find that he states, in classifying his symptoms of the differential diagnosis between the coma of positive hemorrhage and that due to opium-poisoning, that in the latter the absence of glycosuria and albuminuria would render a diagnosis easy. He is mis-

guiding many who may not be aware of the fact that after a full dose of opium we have a condition of temporary glycosuria (artificial diabetes). Confirmatory of my remarks I quote Foster ('Text-Book Physiology,' p. 435, book ii., chap. v., 1880), where we find the following: 'A very similar diabetes is seen in carbonic oxide poisoning, and is one of the results of a sufficient dose of morphia or amyl nitrite.' Same page we also find the following: 'Cyon and Aladoff state that section of the spinal cord, at any height down to the third and fourth dorsal vertebra, prevents said morphia diabetes.'"

THE TRIALS OF A COUNTRY PRACTITIONER IN A COLD REGION.—Dr. T. J. Hutton, of Fergus Falls, Minn., writes: "Your postal received. In reply, I have consulted many to-day as to the temperature on the night of January 17, 1883. All agree that it must have been somewhat lower still than — 60° on that night, for at 10 o'clock in the forenoon of the 18th the spirit thermometers, which indicate but — 52°, were still congealed. On the night of the 4th inst. it must have run equally low, for *at* 11 A.M. *it recorded* — 44°. My dear doctor, we are accustomed to such 'airs,' but as it seems to have for you an element of novelty, I enclose you an old photograph of myself about to go on one of these country calls. And if we met and you had an hour or two of leisure, I could treat you to many queer experiences on such calls —especially such midnight calls. How many times I have resorted to natural language—no interpreter within twenty miles! How often I have slept in a sour, greasy, buggy bed! How often the rooster crowing—perched on the foot of the bed—has awoke me in the morning! How often missed meals, so filthy the houses, hotels twenty miles distant! How often benumbed so in long midnight midwinter rides that I could not even get out my pocket-flask, so stiff my hands and fingers! How often lost by night on the prairie—in winter, too—whew! it makes my own blood curdle even now—for I will no more out winter nights—getting lost by day is bad enough in winter. My last 'lost' was last Friday, returning twenty miles from a diphtheria call. The road taken made the return trip over thirty miles. Sat five hours and thirty-five minutes in the cutter, temperature 30° below—but that was mild! Truly

> "'Who never ate his bread in sorrow,
> Who never spent the midnight hours
> Weeping and watching for the morrow—
> *He* knows not you, ye unseen powers.'"

A SUGGESTION TO IMPROVE THE "INDEX MEDICUS."—Dr. F. A. Castle, of this city, writes: "Your recent criticism of the *Index Medicus* leads me to suggest a plan whereby the medical profession may continue to possess the information furnished by that periodical, in case the present mode of publication has to be abandoned. There are already a sufficient number of special journals published in this country to very nearly cover the field embraced by the *Index Medicus*, and it would be a simple matter, now that the *Index* has been published for several years, to estimate the probable demands for space in one journal of each class. The special journals whose aim it is to furnish their readers with a review of the literature of their topics, might profitably include so much of the *Index Medicus* matter as belongs to them, and pay their *pro rata* of the expense."

CONTAGIOUS DISEASES IN ANIMALS.—The Commissioner of Agriculture, Dr. George B. Loring, called at Chicago a conference of representatives of all bodies interested in the animal industries of the United States. This convention met on November 15th and 16th ult. It discussed the subject of contagious diseases among our domestic animals under the following heads: (1) The extent to which they prevail in this country; (2) the methods of their introduction and spread; (3) the methods by which they may be eradicated or isolated; (4) the efficiency of existing legislation. The convention met during the progress of the annual fat-stock show and other live-stock meetings.

VOLUNTARY INHIBITION OF THE HEART'S ACTION.—Dr. J. Ferguson, of Toronto, Canada, reports a case of this kind somewhat similar to that mentioned by Dr. Brooks in THE RECORD of January 5th. The example was that of a healthy physician, who had the power of controlling his heart's action by an effort of the will. This he used to do occasionally to some of his medical friends for the sake of illustration. Fearing lest he might cause nerve derangement of the organ, he abandoned the habit.

ANOTHER VIEW OF THE MATTER.—Dr. J. Cochrane, of Lowell, Mass., writes the following protest: "In your issue of December 22d, there appeared what you were pleased to term a 'Suggestive Item,' written by Dr. F. A. Tuttle, on the separation of matter and force. As a reader of THE RECORD I feel called on to protest against such an article; it is neither scientific nor medical; it is brimful of just such stuff as makes us the laughing-stock of British and continental scientific men, *e.g.*, what thinker, medical or not, humiliates himself by calling 'in the supernatural' when puzzled? Then he speaks of mind being 'a phase of force.' How can that which creates be 'a phase' of its own effect? If force and matter, their correlations *and dissipation*, are 'awful' mysteries, it is absurd to assert, in the same breath, that these awful mysteries are 'all founded on that one *unit*, the irritability of protoplasm.' How does he *know* that they are? Or is he only stating what *is true*, when he afterward destroys the 'force' of his statements and contradictions, by saying that he does *not know* the ultimate nature of matter?' When did he discover that 'kidney-cells' '*learn*' that strychnia and morphia are poison(s)? Such self-contradictory, nonsensical statements will not settle a subject which calls for the highest, clearest thinking and investigation. 'Metaphysical moonshine' is a great deal clearer than the light he intends to throw upon the subject. Besides, such an article is an indirect insult to those of your readers who are religious. It were better to write nothing than *pretend to know* an 'awful mystery;' more especially when medical gentlemen look for science and reason in your excellent columns."

[We think that if Dr. Cochrane will carefully reperuse the offensive item he will not find it so contradictory or unsuggestive as he supposes. So far from its being likely to make us a laughing-stock, Dr. Tuttle discusses his subject from the standpoint taken by the modern school of psycho-physiology.—ED.]

IODOFORM IN PHTHISIS is highly recommended by Dr. R. Shingleton Smith, also by Semmola and Dreschfeld. The temperature falls, strength increases, and expectoration diminishes. The dose is from one to five grains, from three to five grains daily. Tonic effects after long-continued administration must be looked out for.

THE OPENING FOR PHYSICIANS IN THE NORTHWEST.—In a letter to Dr. C. Henri Leonard, Dr. John Garrow, of New Westminster, B. C., writes of the prospects for young (and old) doctors in the Northwest. He writes: "Timber is king, and for men of capital to engage in the manufacture of lumber, and rough, hardy, laborers, it is the place *par excellence*. A great number of professional men have come who do not directly depend on their present practice; they having money are speculating. Some, too, have come on account of health, either to benefit their own or that of some of their family. Of course such ones are not so badly disappointed as those that came solely for professional gain and work. As an example of the competition in medicine, I may tell you that Tocoma, with a population of between two and three thousand, has somewhere about twenty-five physicians; and Seattle—my objective point—with four or five thousand, has thirty-five or forty physicians. Everywhere it is the same."

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Original Lectures.

ON THE METHODS OF STUDYING THE BRAIN.

ABSTRACT OF THE CARTWRIGHT LECTURES, DELIVERED BEFORE THE ALUMNI ASSOCIATION OF THE COLLEGE OF PHYSICIANS AND SURGEONS, NEW YORK, FEBRUARY 2, 4, AND 6, 1884.

BY BURT G. WILDER, M.D.,

PROFESSOR OF PHYSIOLOGY, COMPARATIVE ANATOMY, AND ZOÖLOGY IN CORNELL UNIVERSITY, AND OF PHYSIOLOGY IN THE MEDICAL SCHOOL OF MAINE.

LECTURE I.

(Concluded from page 144.)

THE lecturer here quoted from Tuke and Bucknill, to the effect that "in all departments of investigation, it is right to commence with the study of that which is common, simple, and regular, and then to proceed to inquire respecting that which is unusual (complex), and irregular."

He also read the following quotation from the novelist G. P. R. James: "Whatever impressions are intended to be produced on the mind of man are always best received when addressed through common associations. We must refer to something that is habitual and pleasing." These statements are eminently applicable to the study of the brain. It would be well, therefore, to preface the examination of the simpler animal brains, or those of embryos, by the study of schematic diagrams, representing the brain in various stages of complexity. These in turn may be made more intelligible by the prior reference to analogous modifications of familiar objects.

In accordance with this suggestion, the encephalic cavities may be likened to the apartments of a house.

The primary components of every room are the walls, and the spaces which they inclose. The walls are specially named floor, sides, and roof. There are communications between each room and those adjoining.

Any single room may be extended in one or more directions, either symmetrically or without any such regularity.

The walls may also be thickened uniformly or locally. In the former case, the room itself might be reduced to a mere passage. In the latter, the original space might be transformed into an irregular labyrinth.

So, too, one apartment may be extended upward so as to overshadow the one below it. The larger may be made to overlap the smaller, and its thicker floor become so attached to the roof on which it rests that removal of the former would involve a tearing off of the latter.

To complete the picture, we may imagine a house consisting of such a series of apartments to be completely enveloped by a continuous layer of tarred paper, and its rooms to be lined throughout with wall-paper, even including the floors and ceilings.

Now it is readily conceivable that, 1. The proper wooden wall of any apartment may be so reduced in thickness as to hardly merit the name. 2. The wall may be omitted altogether at some point, leaving only the two layers of paper. 3. A fold of the lining paper may hang within some apartment.* 4. Between the two layers of this fold a second fold of the covering paper may be interposed. 5. Instead of a complete fold of the covering paper, there may be supported in the fold of lining paper some looped strings or fringes, connected primarily with the covering layer.

Again, while the fold of lining paper is really projected into the apartment, the fold of the other, or its strings and fringes, being covered by the former, are not really within the apartment.

The lecturer then applied these transformations of a familiar structure to the explanation and interpretation of the structure of the brain, illustrating his remarks by a series of blackboard diagrams.[1]

The question of nomenclature would be more fully dealt with in the closing lecture, but a brief reference to the subject seemed advisable at this point. Dr. Wilder pointed out that the unfamiliar names of the numerous encephalic parts formed a serious obstacle to the beginner. With students, therefore, few special names should be introduced at the outset. Moreover, the general terms should suggest familiar objects, as, for example, floor, roof, sides, lining, sheath, pipe, etc. On the present occasion, however, there was no objection to the immediate use of technical terms.

Since several of the latter are based upon the names adopted for the several encephalic segments, it may be well to say a word respecting them. The recognition of segmental constitution of the brain commits no one to the acceptance of any particular number of segments. But with regard to one segment there seems to be little or no difference of opinion. From the middle cerebral vesicle of the embryo is developed the region which is so prominent in the early stages of development. Its floor forms at least part of the *crura cerebri*, its roof shows the elevations known as *lobi optici, corpora quadrigemina, corpora bigemina, nates et testes*, etc., and its cavity is designated as *aquæductus Sylvii*, or *iter a tertio ad quartum ventriculum*. Von Baer called it *mittelhirn, i.e.*, midbrain, or *mesencephalon*, which I have shortened to *mesen*.

The determination of the number of additional segments involves many considerations, and any view of the question must be tentative for the present. I have provisionally adopted the view, recognizing a segment for each of the five principal masses, which named in the order from the myelon, are commonly known as *medulla, cerebellum, lobi optici, thalami*, and *hemisphæræ cerebrales* or *cerebrum*. The abridgements used by Wilder for the names of the five encephalic segments are the following: *Meten, epen, mesen, dien*, and *proen*, which stand respectively for, *metencephalon, epencephalon, mesencephalon, diencephalon*, and *prosencephalon*.

The cavities will be called *cœliæ*. The cavities of the several segments would, therefore, be named as follows: *Metacœlia, epicœlia, mesocœlia, diacœlia*, and *procœlia*. The shorter and simpler English form would be:—mesocele, diacele, etc. In like manner we have *metatela, diatela*, etc., and *metaplexus, diaplexus*, etc.

In the brain of the adult mammal the cavities are small, especially those of the epen and proen; but in the fœtus, even of man, and at a stage considerably later than fœtal life the epicele and procele are comparatively large, and Tiedemann characterizes the fœtal mesocele (which is afterward so much contracted) as a "vast and spacious cavity."

An encephalic cavity (cœlia), like a mass of proto-

plasma, may partially subdivide (segment), may protrude symmetrically (bud), or be irregularly prolonged (cornua). The walls (parietes) may be thickened (hypertrophied) regularly or irregularly, and even to the extent of nearly or quite obliterating the cavity. Between the lateral walls may be developed bands of transverse fibres (commissures), either: First, In the pre-existing wall (*post-commissura*, *commissura habenarum*, and *præcommissura*); second, under the floor (*pons*); third, between the opposed lateral walls directly through the cœlia (*medicommissura*); fourth, between the contiguous walls of two adjoining masses (*callosum* and *commissura fornicis*). The parietes may be corrugated so as to form ental elevations (*hypocampa*, *calcar*), with corresponding depressions (*fissura hippocampæ*, *fissura calcarina*), or without corrugation of the entire walls there may be formed superficial ridges (*gyri*) and furrows (*fissuræ*). Again, the walls may be thinned (atrophy) or disappear, so as to leave at a given point only the lining membrane (endyma), and the vascular sheath (pia), constituting a *tela*.

Further, along a line of atrophy of the proper wall a fold of pia, or a vascular loop therefrom, may push before it the endyma, and thus project apparently into the cavity, so as to form a plexus. Strictly speaking, however, neither the pia nor its vessels are in the endymal cavity in any other sense than the kidneys or the intestines are within the cavity of the peritoneum. One segment may also be inordinately developed, so as to overlap others in one or more directions. And its floor may become intimately connected with the roof of a segment so covered. Finally, the entire brain may be bent upon itself (cranial flexure) or an elongated protrusion (cornu) may be bent (postcornu), or even bent and twisted also (medicornu).

The apposed mesal surfaces of the hemispheres are united by a new formation, the *callosum*. As a whole, the callosum is dorsad of the *commissura fornicis*, and the caudal ends of the two are eventually, if not primarily, continuous at the *splenium*. That part of each hemisphere wall which is thus intercepted between the callosum and the *commissura fornicis* becomes (or remains) thinner than the rest, in man at least, and the two delicate laminæ thus formed constitute the *septum lucidum*; each lamina is a *hemi-septum*, and the space between them is the pseudocœlia or "fifth ventricle."

CONGENITAL MALFORMATION OF THE STERNO-CLEIDO-MASTOID MUSCLES.—Dr. N. O. D. Parks, of Ashton, R. I., sends us the following curious history: "On October 18th, I was called to a primipara who had been in labor since 4 A.M. the previous day, in charge of a midwife. I found the breech presenting and delivered her of a boy, healthy in every respect, save that he was tongue-tied, and presented what I at first took to be enlarged cervical glands. These I subsequently caused to be painted with colorless tincture of iodine. This had no effect whatever in dissipating the tumors. On closer examination I then found a single cartilaginous tumor occupying the site of the sterno-cleido-mastoid, as if that muscle had been converted into cartilage; the sternal end being much more prominent and feeling hard and rigid, exactly like the trachea. It appears to give the child no trouble, and could be manipulated quite roughly without eliciting any cry or other sign of discomfort. When the child turns his head in the direction of the tumor, it seems to cause pain by pressure on the adjacent parts. I told the parents that it was useless to make any further applications to it, and that it was better to leave it to nature. As this seems, to me at least, a unique case, you may think it worthy of record, and if you or any of your readers know of similar cases, might offer suggestions as to the probable cause and treatment, if any, of such abnormality."

Original Articles.

THE PREVENTION AND TREATMENT OF PUERPERAL FEVER.[1]

BY FORDYCE BARKER, M.D., LL.D.,
NEW YORK.

DURING the five years which he had had the honor to occupy this chair he had never before seen a meeting of this Academy so enthralled by the charm of elocution, the fascination of rhetoric, the glow of conviction, and the air of one who speaks by authority—an air which can never carry weight unless it has been before fairly and justly earned by good work—as on the evening of December 6th, when the paper was read on "The Prevention and Treatment of Puerperal Fever."

Its authoritative tone, its earnestness and sincerity, its coloring of being based on experience and observation, instead of being unconsciously deduced from preconceived theory, gave the paper such a plausible air of scientific truth as must secure its acceptance without question by many minds whose belief rests on authority without examination of the data or analysis of argument. The more eminent the author of errors which may dangerously influence medical practice in matters of such vital importance as the saving of life of those who have just become mothers, the more striking the literary excellence, and the more admirable the artistic merits of a paper promulgating such errors, the more necessary it was that such errors should be boldly met and promptly refuted. Any paper read before this Academy by one to whom all conceded a place among the most eminent in the department of the profession to which his life had been devoted, if allowed to pass without examination and discussion, would be accepted by great numbers in all parts of the country as a statement of the science and medical practice as enunciated by the most prominent men of the period.

All would agree that the paper was remarkable for its originality, in that some of its pathological doctrines and the practice inculcated for the prevention and treatment of puerperal fever had never been taught in any work on obstetrics, or by any writer of acknowledged repute. If they were accepted by the common intelligence of the profession they would assuredly be found in the obstetrical works of the future.

As there were many others who would take part in this discussion, he would, in the most concise language consistent with clearness of statement, give his reasons for thinking that the whole tone and coloring of the paper are misleading and dangerous, because it is supersaturated with septic infection. He would not "speak disrespectfully" of puerperal septicæmia. He believed it to be one of the most dangerous incidents which may occur to women after childbirth, and he trusted that it would not be regarded as indelicate if he alluded to the fact that in a work on puerperal diseases, published more than ten years ago, a lecture devoted to the consideration of this subject in all its relations fills thirty-seven pages. He had yet found no reason to make any essential change of the views expressed in that lecture.

In the paper under discussion the author distinctly avows his belief, without any qualification, that "puerperal fever is puerperal septicæmia," and that "it matters not whether it assume the form of metritis, phlebitis, cellulitis, peritonitis, or lymphangitis, the essence of the disorder is a poison which is absorbed into the blood of the parturient woman through some solution of continuity." Not only the sentence quoted, but the whole tenor of the paper must convey to the unbiased mind that it is the well-defined opinion of the author that metritis, phlebitis, peritonitis, and cellulitis are never seen

[1] An abstract of a paper read before the New York Academy of Medicine, February 7, 1884, at the adjourned discussion of the paper on this subject by T. Gaillard Thomas, M.D.

in the puerperal woman except as the result of an initial lesion, which permits the absorption of a specific poison through the parturient canal, either from the atmosphere or from direct infection by doctors or nurses, from neglect or carelessness, or other agents brought in contact with the sexual organs.

The tendency to this pathological view has been rapidly growing within the past few years, as a result of the enthusiastic interest excited chiefly by the important investigations of our German coworkers, who have so zealously studied the character and effects of the micro-organisms in puerperal women *in hospitals*. No one, as yet, has maintained that the process of parturition and the puerperal state exempt a woman from those causes which induce local inflammation in the non-puerperal, or will deny that the process of parturition, and other attendant conditions besides the absorption of septic poison, may be the efficient cause of local inflammation; and he here stated his conviction that in private practice, when there is no epidemic influence, twenty cases of local inflammation, due to such causes, will be met with where one will be found due to septic absorption.

Dr. Barker was in entire accord with the author in his preliminary remarks as to the peculiarities in the system of puerperal women, and had expressed these views in the work alluded to. He supposed that all educated men now know that the blood of a pregnant woman is in a state of hyperinosis, and that, as a rule, "her nervous system is in a plus state of sensitiveness and excitability, and influences which are very controllable in the non-puerperal state produce very evil results here." But it is very evident that in certain points our opinions are wide apart. Dr. Thomas regards certain conditions, which always are found following normal labor and always occur in normal puerperal convalescence, as pathological, but which Dr. Barker believed to be purely physiological. The ancients believed in the poisonous nature of the menstrual fluid.

Dr. Barker had supposed this superstition to be extinct until informed by a letter from his friend, Dr. Weir Mitchell, that he knew "old men who would not permit a woman to enter their wine-room, for fear that, if menstruating, it would injure their wines." He also informed him that "in Roquefort women are not allowed in their cheese cellars." Dr. Barker supposed the theory must be that menstrual bacteria will destroy the bouquet of the Roquefort cheese.

But on the evening of December 6, 1883, in this Academy of Medicine, he first heard the full evolution of this doctrine clearly enunciated. The lochia are described as an offensive fluid, made up of dead and decaying animal tissues, which poisons freshly made unprotected wounds, and here Dr. Barker quoted:

"In every case of child-bearing the endometrium is thus encumbered, and freed by a process of exfoliation and sloughing; in every case the cervix, vaginal mucous membrane, perineum, and vulva are, in varying degrees, lacerated; and in every case the offensive fluid, called lochia, poisons these freshly made, unprotected wounds."

Again the writer says: "Here we have a number of recent wounds constantly and unavoidably bathed with a fluid made up of dead and decaying tissue, animal tissue in a woman whose blood and nerve states are, with reference to septic disease, like flax prepared for the spark, and who is exhausted by pain, anxiety, loss of blood, and deprivation of sleep."

Other quotations might be given of a similar tenor, and the prophylactic measures, which he asserts "should be adopted in all midwifery cases, whether they occur in hospitals or in private practice," are based mainly on this theory.

Can it be true that the process necessary for the birth of the human race is always attended with the development of a deadly poison whose malignant effects must inevitably prevent the spontaneous and kindly healing of such little traumatisms as always result from the process, and that, therefore, it is the duty of the accoucheur to take preventive measures of the character proposed? Does every parturient woman, in performing the function of maternity, like the scorpion, that carries in its tail an agent for suicide, if death is threatened by fire, physiologically generate an equally fatal poison in a corresponding locality, which the obstetrician must guard against by means that are most inconvenient, alarming, and not altogether free from danger?

He did not intend now to examine the question, which he had before discussed very thoroughly, and his views had long been published, whether there be not a distinct disease, most appropriately denominated puerperal fever, when, if there be any septicæmia, it must be a consequence of a primary disease, and not a cause. Nearly a hundred years ago the eminent obstetrician of London, who succeeded Denman, Dr. John Clarke, wrote as follows in regard to puerperal fever: "Unfortunately, the uniformity of the disease was assumed, and each author erected his own experience into a standard, by which to judge of the descriptions and the practice of others."

All we know of any disease is derived from the study of its etiology, its clinical phenomena, and its anatomical lesions. The epidemic disease to which he had just referred differs in all characteristic points from what is known as septicæmia. It differs in its origin, its modes of attack, its symptoms, and its anatomical lesions. The symptoms are frequently manifested a day or two before or even during labor, even when the child is subsequently born alive. In septicæmia the symptoms are never observed before or during labor, except when the fœtus is putrid. The former disease, puerperal fever, originates from epidemic causes, and from contagion and infection; the latter, from nosocomial malaria, from autogenetic infection, and from direct inoculation. Can a woman after childbirth be exposed to the danger of receiving the poison which produces septicæmia in larger doses than when she has retained in her uterus a portion of putrid, decomposed placenta? Yet he did not believe there was a single person who had had considerable obstetric practice for twenty years who had not had more than once to remove portions of putrid placenta which had been retained for days, and the patient had had no disturbance of such severity that he would call it puerperal fever.

Before leaving this part of the subject, he briefly alluded to one other point, which strikingly illustrated the difference between puerperal fever and septicæmia. He thought there could be no doubt that the majority of the profession believed that all those cases of nosocomial malaria, such as aggregation, bad ventilation, contact with septic material, etc., which have a tendendy to induce septicæmia in surgical cases, have an equal tendency to develop the disease known as puerperal fever in women recently confined. But this does not prove that the diseases are identical, for there is abundant evidence that, while these causes are always requisite for the development of surgical septicæmia, puerperal fever may be a very epidemic when these causes are wholly wanting.

In the early months of 1873 puerperal fever prevailed in the best parts of the city, and in that class of society possessed of abundant means and living under as good sanitary conditions as are possible in any large city, to a degree and extent here unknown for the previous twenty-five years. The deaths from this disease in the hospitals and in the wards of the city where the poor are aggregated were much less than in many former years. In five of the best wards of the city, in which are the residences of a great proportion of those of wealth, and few of the class of dwellings known as tenement-houses, with a population of 307,046, there were 80 deaths from puerperal fever, while in the remaining wards of the city, with a population of 605,245,

there were but 63 deaths. In other words, he might say that during this period, in those wards of the city where the causes of septicæmia must have existed in the greatest abundance, the mortality was nearly one-third less from puerperal fever, in proportion to the population, than in the best parts of the city, where these causes of septicæmia could have existed only in a very limited degree.

From all these considerations, he thought that if all the knowledge of this disease be derived from authors who have studied it in hospitals exclusively, it will be limited and one-sided, and the deductions, both as to its pathology and treatment, must, in many instances, be erroneous and unsafe. Without further details, he would content himself by expressing an opinion which will surprise many who have been carried along by the popular wave of the septic theory, as the initial cause of most of the puerperal diseases. His conviction was strong, based partly on individual experience, but chiefly on a careful study of the clinical midwifery reports of private practice and all the literature of the subject in his possession—and this was very full as regards the English and French languages—that outside of hospitals less than two per cent. of the puerperal diseases, and not half of one per cent. of the deaths after childbirth were due to septicæmia. There are no statistics of private practice which demonstrate the error of this opinion. The belief of the septicæmists that terrible dangers threaten every woman in childbirth is based wholly on theory. In support of the opinion just expressed, he did not wish to summon any higher authority, even if it were possible to do so, than the writer of the paper now under discussion, and from which he made the following quotations:

"And yet what are the usual results? Recovery, uniformly, I might say universally, unless some unusual occurrence manifests itself to prevent this happy consummation. Theorizing about the matter, one would suppose that the mortality resulting from such a state of things must be excessive."

. . . . . .

"And yet the facts are these: only about one or two in every one hundred parturient women ordinarily die, when properly cared for during labor, even in public hospitals."

With reference to "the prophylactic measures which should be adopted in all midwifery cases, whether they occur in hospital or in private practice," as the author of the paper distinctly avows; "if she who is about to bring forth" must "be treated as one about to go through the perils of a capital operation;" if all those preparations, so definitely enumerated, which gynæcological surgeons insist upon previous to an ovariotomy or a laparotomy, are necessary in ordinary labors; if the danger from child-bearing be so great that a wise and prudent obstetrician is justified in subjecting his patient to the hazardous depression of intense anxiety and fearful doubt as to results, and in surrounding her with the vivid apprehension of her family, instead of stimulating and cheering her with the great happiness of maternity and the hope of increased interest and love from her husband; if all, or even a considerable part of the details mentioned are necessary "to save thousands of lives which are now lost," and to spare "thousands of desolate households the sorrow of losing their female heads"—then it seemed to him evident that the State should make child-bearing a penal offence for all those families who do not have a sufficient annual income to make it possible to carry out all these requirements. Such a law could only be made effective by adopting the facetious suggestion which appeared in THE MEDICAL RECORD of January 19th over the signature of Seth Hill, Stepney, Conn.

The description given of puerperal fever, true as it may be, in its outlines, of the septicæmia which gynæcological surgeons are so often forced to encounter, he thought would strike obstetricians familiar with the disease in the lying-in chamber as the ideal picture of a poet, differing as much from the scientific description of trained clinical observation as the pictures of natural scenery by a Byron or a George Sand would differ from a scientific description of a mountain or a lake by Humboldt.

As to diagnosis, he could not regard the symptoms mentioned, even in their totality, as pathognomonic of septicæmia, as all of them are to be found in other puerperal affections, when there is no evidence of septic absorption, unless with the author it be assumed that all puerperal disturbances are due to this cause alone.

Dr. Barker then expressed his convictions by giving a few general propositions.

In puerperal fever, as met in private practice, we have to treat the *consequences* of some form of blood-poisoning. This may or may not be septic poisoning. In private practice, he thought it generally due to some occult, possibly atmospheric, epidemic influence; in hospital patients, nosocomial malaria, often associated with septic poisoning.

No treatment which interrupts the normal physiological processes—such as the retrograde metamorphosis of involution, the fatty transformation of the component fibres of the uterus, or the cicatrization of its internal surface by the exudation of organizable lymph, and the development of a new layer of mucous membrane, or the healing of traumatic lesions—can be justified, unless positive symptoms, now well understood in science, demonstrate their necessity.

Antiseptic injections, both vaginal and intra-uterine, are of great service when the indications for their use are clearly shown by local signs of general symptoms, but they cannot be recommended with safety as a routine practice on theoretical grounds, as, for obvious reasons, they may be most detrimental in retarding the cicatrization of lesions and the other processes of normal convalescence, and are otherwise sometimes dangerous.

With reference to refrigeration as a means of reducing fever in puerperal diseases. He had no question that it may be useful in some cases, but his own experience in this method of treatment has not been favorable. Many years ago he tried it in several cases in Bellevue Hospital, but he soon gave it up, as the results were less satisfactory than where other plans of treatment were pursued. Cold will effectively and usefully reduce the temperature in active inflammations and acute fevers, but in adynamic diseases and in hectic fever this must be attended with a rapid waste of tissue more dangerous than the pyrexia.

Dr. Barker then asked permission to refer to a matter outside of the question of the prevention and treatment of puerperal fever, but in behalf of the "truth of history." He asked any who might have felt sufficient interest to turn to the 320th page of his work on "Puerperal Diseases," where they would find on that and the following pages the subject of intra-uterine injections fully discussed. Instruments for their administration, which had been devised more than fifteen years ago, were shown to the class, and explicit directions were given as to the methods and indications for these injections, differing in no essential from those heard in this hall on the 6th of December. The lecture was delivered in the amphitheatre of Bellevue Hospital, in February, 1869, and the work in which it is printed was published in January, 1874. Then it may interest some to look at page 85 of volume iv. of the "Transactions of the American Gynæcological Society," and read the papers by Dr. Edward W. Jenks, of Chicago, and Dr. James R. Chadwick, of Boston, on intra-uterine injections, and the discussion which followed.

In conclusion, he added that his creed to-day is fully avowed on page 476 of the book to which he had before referred, and, unless in the future he learned new facts and new arguments to change his faith, he should "die impenitent."

STATISTICS OF FOUR HUNDRED CASES OF RHEUMATISM.

By CHARLES H. MAY, M.D., New York.

Table I.—*Continued from p. 121.*

Cases in which Maximum Temperature was 102° to 102.5°.

Salicylic Acid.

Number of case.	Duration: Of joint symptoms before entering hospital.	Of joint symptoms after entering hospital.	Of pyrexia.	Of stay in hospital.
	Days.	Days.	Days.	Days.
1	6	10	3	16
2	10	6	4	13
3	35	5	21	35
4	8	3	6	6
5	8	4	..	33
6	6	4	4	13
7	28	6	6	55
8	21	9	6	9
9	30	3	3	36
10	6	4	3	29
10	153	54	56	245
Average..	15.3	5.4	6.22	24.5

Rochelle Salt.

Number of case.	Duration: Of joint symptoms before entering hospital.	Of joint symptoms after entering hospital.	Of pyrexia.	Of stay in hospital.
	Days.	Days.	Days.	Days.
1	6	5	2	19
1	6	5	2	19

First Sal. Acid, then Pot. Iodide and Colchicum.

Number of case.	Duration: Of joint symptoms before entering hospital.	Of joint symptoms after entering hospital.	Of pyrexia.	Of stay in hospital.
	Days.	Days.	Days.	Days.
1	3	5	3	14
1	3	5	3	14

Miscellaneous.

Number of case.	Duration: Of joint symptoms before entering hospital.	Of joint symptoms after entering hospital.	Of pyrexia.	Of stay in hospital.	Treatment.
	Days.	Days.	Days.	Days.	
1	14	45	21	69	Atropia. Quinine. Rochelle salt.
2	21	52	22	52	Salicylic acid. Pot. bicarb. Sal. acid. Pot. iod. and colch.
3	3	9	3	10	Potassium iodide and colch. Rochelle salt.
4	77	16	10	22	Salicylic acid. Potassium bicarb. and acetate.
5	14	18	23	38	Potassium acetate.
6	17	15	9	19	Local treatment only.
6	146	155	88	210	
Average..	24.333	25.83	14.666	35	

Cases in which Maximum Temperature was from 102.5° to 103°.

Salicylic Acid.

Number of case.	Duration: Of joint symptoms before entering hospital.	Of joint symptoms after entering hospital.	Of pyrexia.	Of stay in hospital.
	Days.	Days.	Days.	Days.
1	7	7	..	7
2	3	3	3	7
3	3	8	.	8
4	5	8	3	19
5	7	17	15	31
5	25	43	21	72
Average	5	8.6	7	5.4

Rochelle Salt.

Number of case.	Duration: Of joint symptoms before entering hospital.	Of joint symptoms after entering hospital.	Of pyrexia.	Of stay in hospital.
	Days.	Days.	Days.	Days.
1	5	25	7	25
1	5	25	7	25

Iodide of Potassium and Wine of Colchicum.

Number of case.	Duration: Of joint symptoms before entering hospital.	Of joint symptoms after entering hospital.	Of pyrexia.	Of stay in hospital.
	Days.	Days.	Days.	Days.
1	2	20	6	21
1	2	20	6	21

First Salicylic Acid, then Potassium Iodide and Wine of Colchicum.

Number of case.	Duration: Of joint symptoms before entering hospital.	Of joint symptoms after entering hospital.	Of pyrexia.	Of stay in hospital.
	Days.	Days.	Days.	Days.
1	11	6	5	11
1	11	6	5	11

Atropia, gr. 1/120 hypodermically t. i. d.

Number of case.	Duration: Of joint symptoms before entering hospital.	Of joint symptoms after entering hospital.	Of pyrexia.	Of stay in hospital.
	Days.	Days.	Days.	Days.
1	16	8	6	40
2	5	9	6	21
2	21	17	12	61
Average	10.5	8.5	6	30.5

Miscellaneous.

Number of case.	Duration: Of joint symptoms before entering hospital.	Of joint symptoms after entering hospital.	Of pyrexia.	Of stay in hospital.	Treatment.
	Days.	Days.	Days.	Days.	
1	7	29	..	29	Pot. iodide. Rochelle salt.
2	1	27	5	27	Ac. sulphuricum dil.
3	7	7	9	14	Ergot. Dover's po. and sal. ac.
4	2	28	10	28	Rochelle and Tully's powder. Pot. iod. and wine of colch.
4	17	91	24	98	
Average	4.25	22.75	8	24.5	

TABLE L.—*Continued.*

CASES IN WHICH MAXIMUM TEMPERATURE WAS FROM 103° TO 103.5°.

Salicylic Acid.					Rochelle Salt.					Miscellaneous.					
Number of case.	Duration: Of joint symptoms before entering hospital.	Of joint symptoms after entering hospital.	Of pyrexia.	Of stay in hospital.	Number of case.	Duration: Of joint symptoms before entering hospital.	Of joint symptoms after entering hospital.	Of pyrexia.	Of stay in hospital.	Number of case.	Duration: Of joint symptoms before entering hospital.	Of joint symptoms after entering hospital.	Of pyrexia.	Of stay in hospital.	Treatment.
	Dys	Dys	Dys	Dys		Dys	Dys	Dys	Dys		Dys	Dys	Dys	Dys	
1	2	6	3	13	1	10	8	13	33	1	21	16	6	25	Pot. iod. and colch. Sal. acid.
2	7	11	4	12	2	6	22	13	57	2	8	12	12	17	Rochelle. Salicylic acid.
3	21	40	12	41						3	9	81	7	84	Rochelle. Pot. iod. Sulph. acid.
4	14	17	11	22						4	14	7	..	7	None.
5	6	10	5	10						5	4	48	12	50	Quinine.
5	50	84	35	98	2	16	30	26	90	5	56	164	37	283	
Av..	10	16.8	7	19.6		8	15	13	45		11.2	32.8	9.25	36.6	

CASES IN WHICH MAXIMUM TEMPERATURE WAS FROM 103.5° TO 104°.

Salicylic Acid.					Rochelle Salt.					Iodide of Potassium and Wine of Colchicum.					Atropine.					Miscellaneous.					
Number of case.	Duration: Of joint symptoms before entering hospital.	Of joint symptoms after entering hospital.	Of pyrexia.	Of stay in hospital.	Number of case.	Duration: Of joint symptoms before entering hospital.	Of joint symptoms after entering hospital.	Of pyrexia.	Of stay in hospital.	Number of case.	Duration: Of joint symptoms before entering hospital.	Of joint symptoms after entering hospital.	Of pyrexia.	Of stay in hospital.	Number of case.	Duration: Of joint symptoms before entering hospital.	Of joint symptoms after entering hospital.	Of pyrexia.	Of stay in hospital.	Number of case.	Duration: Of joint symptoms before entering hospital.	Of joint symptoms after entering hospital.	Of pyrexia.	Of stay in hospital.	Treatment.
	Dys	Dys	Dys	Dys		Days.	Dys	Dys	Dys		Dys	Dys	Dys	Dys		Dys	Dys	Dys	Dys		Dys	Days.	Dys	Days.	
1	5	14	20	41	1	8	46	15	48	1	42	31	..	79	1	2	53	9	84	1	13	50	5	57	Sal.acid. Pot. carb. Sal. acid. Am. carb. & mur. & pot. carb.
					2	7	23	7	23						2	6	9	5	18	2	21	15	5	15	Rochelle and quin. Pot. carb. and opium.
					3	5	38	19	48											3	5	13	11	18	Rochelle. Potassium iodide.
																				4	3	99	29	99	Pot. iod. and colch. Iron. Sod. salicyl. Pot. acetate. Pot. carbonas. Iron and quinine.
1	5	14	20	41	3	20	107	41	119	1	42	31	..	79	2	8	62	14	102	4	42	177	50	189	
						6.666	35.6	13.6	39.6							4	31	7	51		10.5	44.25	12.5	47.25	

CASES IN WHICH MAXIMUM TEMPERATURE WAS FROM 104° TO 104.5°.

Salicylic Acid.					Atropine.					Miscellaneous.					
Number of case.	Duration: Of joint symptoms before entering hospital.	Of joint symptoms after entering hospital.	Of pyrexia.	Of stay in hospital.	Number of case.	Duration: Of joint symptoms before entering hospital.	Of joint symptoms after entering hospital.	Of pyrexia.	Of stay in hospital.	Number of case.	Duration: Of joint symptoms before entering hospital.	Of joint symptoms after entering hospital.	Of pyrexia.	Of stay in hospital.	Treatment.
	Days.	Days.	Days.	Dys		Days.	Days.	Dys	Dys		Days.	Days.	Dys	Dys	
1	12	10	13	35	1	14	11	7	12	1	7	42	7	42	Potassium iodide and carb.
2	7	42	13	55						2	3	36	24	47	Sulphuric acid, dil.
3	4	56	9	31						3	7	45	..	58	Iron and quinine.
3	23	75	35	121	1	14	11	7	12	3	17	123	31	147	
Average	7.66	25	11.282	40.3						Average	5.666	41	15.5	49	

CASES IN WHICH MAXIMUM TEMPERATURE WAS 104.5° AND OVER.

Salicylic Acid (106.1°).					Atropine (107.2°).					Miscellaneous (104.75°).					
Number of case.	Duration: Of joint symptoms before entering hospital.	Of joint symptoms after entering hospital.	Of pyrexia.	Of stay in hospital.	Number of case.	Duration: Of joint symptoms before entering hospital.	Of joint symptoms after entering hospital.	Of pyrexia.	Of stay in hospital.	Number of case.	Duration: Of joint symptoms before entering hospital.	Of joint symptoms after entering hospital.	Of pyrexia.	Of stay in hospital.	Treatment.
	Days.	Days.	Dys	Dys		Days.	Days.	Dys	Dys		Days.	Days.	Dys	Dys	
1	3	25	7	40	1	6	4	11	46	1	7	9	34	47	Rochelle salt and Dover's powder and muriate of ammonia.
1	3	25	7	40	1	6	4	11	46	1	7	9	34	47	

TABLE M.—*Average results, derived from the preceding Table (L).*

Maximum temperature.	Salicylic Acid.			Rochelle Salt.			Iodide of Potassium.			Iodide of Potassium and Wine of Colchicum.			First Salicylic Acid then Iodide of Potassium and Colchicum.			Atropia.			Miscellaneous.		
	Duration of joint symptoms before entering hospital.	Number of cases.	Dur'n of pyrexia.	Duration of joint symptoms after entering hospital.	Number of cases.	Dur'n of pyrexia.	Duration of joint symptoms before entering hospital.	Number of cases.	Duration of stay in hospital.	Duration of joint symptoms before entering hospital.	Number of cases.	Dur'n of pyrexia.	Duration of joint symptoms before entering hospital.	Number of cases.	Dur'n of pyrexia.	Duration of joint symptoms before entering hospital.	Number of cases.	Dur'n of pyrexia.	Duration of joint symptoms before entering hospital.	Number of cases.	Dur'n of pyrexia.
	Days.		Days.	Days.		Dys.	Days.		Days.	Days.		Dys.	Days.		Days.	Days.		Days.	Days.		Days.
Normal ...	695	26	...	305	8	...	1,194	8	571	1,118	28	...	46	7	...	77	2	...	1,887	110	17.172
99°–99.5°	291	8	14	45	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
99.5°–100°	63	6	13	129	2	5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
100°–100.5°	132	11	43	202	2	10	28	1	53	9	2	1	119	2	4	65	2	7	1,407	123	12.432
100.5°–101°	288	7	56	33	1	14	...	...	...	...	...	...	30	2	2	16	1	1	...	...	...
101°–101.5°	269	10	78	212	2	26	...	...	...	...	...	...	70	2	2	11	1	4	...	...	...
101.5°–102°	80	11	33	126	2	25	...	...	...	...	...	...	10	2	4	62	1	11	...	...	...
102°–102.5°	153	10	56	54	2	5	...	...	...	...	...	...	3	2	3	17	1	4	...	...	...
102.5°–103°	85	5	21	43	2	25	...	...	...	6	1	6	11	1	5	...	...	...	...	...	...
103°–103.5°	90	5	35	84	2	30	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
103.5°–104°	5	1	28	14	1	27	...	...	...	...	...	...	1	1	6	8	1	14	...	...	...
104°–104.5°	35	3	35	75	1	41	...	...	...	79	1	9	...	...	...	2	1	7	...	...	...
Above 104.5°	3	1	7	25	1	3	...	...	...	...	...	...	...	...	...	...	...	11	...	...	...
Total	1,887	110	381	1,407	123	87	1,194	21	1,194	1,045	31	6	343	18	36	171	8	44	1,809	66	12.424
Average ...	17.172	....	4.884	12.432	..	8.7	25.285	..	40.785	33.709	..	6	19.055	..	3.272	21.375	..	7.333	27.409	..	....

Maximum temperature.	Salicylic Acid.			Rochelle Salt.			Iodide of Potassium.			Iodide of Potassium and Wine of Colchicum.			First Salicylic Acid then Iodide of Potassium and Colchicum.			Atropia.			Miscellaneous.		
	Duration of joint symptoms before entering hospital.	Number of cases.	Dur'n of pyrexia.	Duration of joint symptoms after entering hospital.	Number of cases.	Dur'n of pyrexia.	Duration of joint symptoms before entering hospital.	Number of cases.	Duration of stay in hospital.	Duration of joint symptoms before entering hospital.	Number of cases.	Dur'n of pyrexia.	Duration of joint symptoms before entering hospital.	Number of cases.	Dur'n of pyrexia.	Duration of joint symptoms before entering hospital.	Number of cases.	Dur'n of pyrexia.	Duration of joint symptoms before entering hospital.	Number of cases.	Dur'n of pyrexia.
	Days.		Days.	Days.		Dys.	Days.		Days.	Days.		Dys.	Days.		Days.	Days.		Days.	Days.		Days.
Normal ...	695	26	...	305	8	...	1,194	8	571	1,118	28	...	46	7	...	77	2	...	1,887	110	17.172
99°–99.5°	291	8	14	45	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
99.5°–100°	63	6	13	129	2	5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
100°–100.5°	132	11	43	202	2	10	28	1	53	9	2	1	119	2	4	65	2	7	1,407	123	12.432
100.5°–101°	288	7	56	33	1	14	...	...	...	...	...	...	30	2	2	16	1	1	...	...	...
101°–101.5°	269	10	78	212	2	26	...	...	...	...	...	...	70	2	2	11	1	4	...	...	...
101.5°–102°	80	11	33	126	2	25	...	...	...	...	...	...	10	2	4	62	1	11	...	...	...
102°–102.5°	153	10	56	54	2	5	...	...	...	...	...	...	3	2	3	17	1	4	...	...	...
102.5°–103°	85	5	21	43	2	25	...	...	...	6	1	6	11	1	5	...	...	...	...	...	...
103°–103.5°	90	5	35	84	2	30	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
103.5°–104°	5	1	28	14	1	27	...	...	...	...	...	...	1	1	6	8	1	14	...	...	...
104°–104.5°	35	3	35	75	1	41	...	...	...	79	1	9	...	...	...	2	1	7	...	...	...
Above 104.5°	3	1	7	25	1	3	...	...	...	...	...	...	...	...	...	...	...	11	...	...	...
Total	1,887	110	381	1,407	123	87	1,194	21	1,194	1,045	31	6	343	18	36	171	8	44	1,809	66	12.424
Average ...	17.172	....	4.884	12.432	..	8.7	25.285	..	40.785	33.709	..	6	19.055	..	3.272	21.375	..	7.333	27.409	..	....

The slight discrepancies in the number of cases employed in estimating the total duration of the various items, in the preceding tables, when occurring with the same temperature, and under the same treatment, are due to the fact that one or other of the items were omitted in the histories of the cases recorded in the case books of the hospital; this occurred, however, in but very few instances.

The preceding tables include 271 cases of cure. Of these—

Salicylic acid alone was employed in	113	cases.
Rochelle salt alone in	21	"
Potassic iodide alone in.....	14	"
Pot. iodide and colch. alone in	31	"
Sal. acid and pot. iod. and colch. in	18	"
Atropia, $\frac{1}{120}$ gr. t.i.d., hypoder. in...	8	"
Miscellaneous remedies[1] in	66	"
Total	271	"

Comparing the averages obtained from the preceding table there results the following *résumé*:

TABLE N.

Treatment.	Average duration of joint symptoms before entering hospital.	Number of cases.	Average duration of joint symptoms after entering hospital.	Number of cases.	Average duration of pyrexia (after admission).	Number of cases.	Average duration of stay in hospital.	Number of cases.
	Days.		Days.		Days.		Days.	
Salicylic acid.....	17.172	110	12.451	113	4.884	78	24.787	113
Rochelle salt	37.047	21	26.761	21	8.7	10	34.285	21
Iodide of potassium.....	85.285	14	26.071	14	....	..	40.785	14
Iodide of potassium and colch...	38.193	31	25.806	21	....	..	33.709	31
Salicylic acid, and then this stopped and iodide potassium and colchicum.....	19.055	18	23.333	18	3.272	11	26.277	18
Atropia	10.625	8	21.375	8	7.333	6	40	8
Miscellaneous	23.4	65	27.409	66	12.424	33	34.484	66

The average duration of the joint symptoms before admission to the hospital is included in these tables, because this item considerably influences the results of treatment; a subacute case of considerable duration before treatment was begun, being notably much more difficult to cure and obstinate than a recent and acute case.

The average duration of the stay in the hospital is given, because some English observers claim that although salicylic acid may diminish the duration of the acute joint symptoms, and of the pyrexia, that the actual length of time before the patient is fully restored, and is fit to be discharged from the hospital, is no less than when other remedies are employed.

In calculating the length of time during which the patient remained in the hospital, in a few cases in which, after the patient was completely well, he or she was retained in the employment of the hospital, such additional time after complete restoration has not been counted.

In the treatment by salicylic acid, and by iodide of potassium with wine of colchicum successively, the former was used at the commencement of treatment and replaced by the latter after a time, especially when the disease improved slowly, and where it showed any tendency to become subacute or chronic.

Under the treatment by iodide of potassium, and by this drug with colchicum, no average duration of pyrexia is given, since in only one case treated by these remedies was there any elevation of temperature; these methods of treatment having been employed mostly in subacute and chronic cases, or when they showed a ten-

[1] Under this heading are those cases in which either a great many different drugs were employed, or in which a certain drug was employed in so few cases that the number was not sufficient for statistics.

dency to lapse into these forms. This accounts also for the fact that the average duration of joint symptoms before entrance to hospital, under the subdivisions of these two methods of treatment, is great.

On consulting Table N, on the preceding page, containing a *résumé* of the average results, we find that although there is little difference in the average duration of joint symptoms after entrance to hospital, under all the other methods of treatment (ranging between twenty-one and twenty-seven days), yet with the use of salicylic acid these symptoms lasted about one-half as long (twelve and a half days).

Again, in considering the duration of the pyrexia, we find that after the use of salicylic acid it was considerably less than when any other method of treatment was employed. An apparent contradiction to this statement exists in the fact that, under the head of treatment by salicylic acid and iodide of potassium with colchicum, used successively, the duration of the pyrexia is less than in the average of those cases in which salicylic acid was employed alone; but the credit of this short duration of elevation of temperature belongs to the salicylic acid and not to the iodide of potassium and wine of colchicum, since the former drug was employed first, and in all cases for a longer period than the average duration of the pyrexia.

The average stay in the hospital was less, also, with treatment by salicylic acid than by any other treatment.

These facts would indicate an immense advantage in the employment of salicylic acid for the cure of rheumatism.

But an objection might be made to this statement, or rather such a conclusion, and very properly too, that it is not fair to compare the results obtained by averaging the duration of the various items, in a large number of cases, without any regard to the severity of the disease; thus we find, that while salicylic acid was employed, in most instances, in acute cases, and in a proportionately small number of subacute or chronic cases, the other remedies were employed in a much larger proportion of the latter variety of cases; and these, being undoubtedly more obstinate, a comparison of the results as per Table N, is not entirely proper or just.

To obviate this Table L is designed; here only cases of equal severity are compared; and whenever the number of cases under any subdivision is large enough, the showing of salicylic acid is always better than that of any other remedy. Even such comparisons may be objected to as not being comparisons of cases of *exactly* the same severity, since the maximum temperature only is taken as a measure of their severity. Certainly the maximum temperature is no *absolute* guide to the severity of an attack of rheumatism, but it is a fair indication, and is the *only one* of the symptoms which can be expressed by figures, there being no way of comparing the degree of local manifestations, especially since pain is merely relative.

Unpleasant Effects following the Administration of the various Remedies used in the Treatment of Rheumatism.

On consulting the following table (O), it will be seen that disagreeable effects followed the combined use of iodide of potassium and wine of colchicum in a greater percentage of cases than after the use of any of the other remedies.

Then next in frequency comes salicylic acid given in solution, while this same drug, given in capsules, caused disagreeable effects in comparatively few cases, only eight per cent., while in solution the percentage was 21⅓, almost three times as great. This was due to the frequency with which nausea and vomiting were excited when the drug was given in solution.

Table O.—*Exhibiting proportion of cases in which there were "Iodism," "Salicylism," etc.—400 cases.*

Symptoms.	Remedies. Salicylic acid in capsules.	Salicylic acid in solution.	Iodide of Potassium.	Iodide of Potassium and Wine of Colchicum.	Rochelle salt.	Total cases.
Delirium	3 cases. Dose, gr. x. to xv. every 2 h.	.....	.....	.....	.....	3
Headache	.....	.....	1 case. Dose, gr. xv. t.i.d.	3 cases. Dose, gr. xv.-xx. ℥ss t.i.d.	.....	4
Vertigo	.....	1 case. Dose, gr. x. q. 2 hrs.	.....	1 case. Dose, gr. x.-xx. ℥ss t.i.d.	.....	2
Tinnitus aurium	3 cases. Dose, gr. x. q. 2 hrs.	.....	.....	.....	.....	3
Coryza	.....	.....	1 case. Dose, gr. x. t.i.d.	.....	.....	1
Nausea and vomiting.	5 cases. Dose, gr. x. q. 2-3 h.	8 cases. Dose, gr. x. q. 2 hrs.	.....	7 cases. Dose, gr. x.-xx. ℥ss t.i.d.	1 case. Dose, ʒj. t.i.d.	21
Diarrhœa	1 case. Dose, gr. x. q. 2-4 h.	.....	1 case. Dose, gr. v. t.i.d.	6 cases. Dose, gr. x.-xx. t.i.d.	2 cases. Dose, ʒj. t.i.d.	10
Acne	.....	.....	2 cases. Dose, gr. x. q. 3 hrs.	4 cases. Dose, gr. x. ℥ss t.i.d.	.....	6
Total	12 cases.	9 cases.	5 cases.	21 cases.	3 cases.	50
Number of cases in which remedy was employed	150	42	47	92	69	400
Percentage of cases in which disagreeable symptoms were developed	8 %.	21⁴/₄₂ %	10⅝%	22¾%	4⅓%	12½%

Since the resulting disagreeable effects are greatly lessened by giving this drug in capsules, it becomes a matter of interest whether it is as efficacious in the cure of rheumatism, when given in solution, as it is when administered in capsules.

The following table (P) shows that there was little difference in the results of the administration of the drug, in solution and in capsules, respectively.

Table P.—*Relative efficacy of salicylic acid given in solution and in capsules.*

	Duration of joint symptoms before entering hospital.	Duration of joint symptoms after entering hospital.	Duration of pyrexia.	Duration of stay in hospital.
Salicylic Acid in Solution.				
Total number of days	867	295	122	805
Number of cases	30	30	18	30
Average number of days	28.9	9.833	6.777	26.833
Salicylic Acid in Capsules.				
Total number of days	1,020	1,112	259	1,996
Number of cases	80	83	60	83
Average number of days	12.75	13.397	4.316	24.048
Salicylic Acid, both in Solution and in Capsules.				
Total number of days	1,887	1,407	381	2,801
Number of cases	110	113	78	113
Average number of days	17.172	12.451	4.884	24.787

Complications of Rheumatism.

It has been impossible in these statistics to give tables showing the comparative liability to complications, especially those of the heart and pericardium, with different methods of treatment, since, as a rule, the cases had

their complications already developed at the time of entering the hospital. Especially is this true of the heart complications, in which the uncertainty is rendered still greater when the patients give a history of previous attacks of rheumatism.

Table Q gives the nature of the complications. Of the 400 cases there were 144 which were complicated; but these 144 complicated cases presented 204 separate lesions, since in many of the cases two or more valvular lesions of the heart existed, and in others there was, in the same case, both a cardiac and some other complication.

Hence, the first line in the succeeding table represents the number of complicated cases; and where two lesions complicate the same case the second one is put on the second line, so that the first and second lines together represent the number of complicating lesions.

TABLE Q.—*Complications.*

| | | |

complications were found to exist at the time when the patients entered the hospital, in those cases which had previously suffered from rheumatism it would be impossible to tell with which attack, and hence at what age the cardiac lesions had developed.

Even in the cases of first attack it is possible for the cardiac lesion to have existed previously, though the patient denied any previous attack of rheumatism; but this does not occur frequently enough to materially alter the results of Table T. From this table it is seen that the greatest proportionate development of cardiac lesions with first attacks of rheumatism is between the ages of ten and thirty years—in young persons. This is independent of the greater frequency of attacks of rheumatism in the young.

Table U shows the relation of liability to cardiac complications to the severity of the attack, as indicated by the maximum temperature attained.

TABLE U.—*Showing relative liability to cardiac complications with attacks of different severity.*

Maximum temperature.	No. of cases of heart complication.	No. of cases of first attack of rheumatism.	Percentage of cases with heart complication.
Normal	15	93	16 per cent.
99° to 99.5°	1	7	14 "
99.5° to 100°	4	11	36 "
100° to 100.5°	6	12	50 "
100.5° to 101°	4	9	44 "
101° to 101.5°	7	14	50 "
101.5° to 102°	4	6	67 "
102° to 102.5°	6	14	43 "
102.5° to 103°	4	13	31 "
103° to 103.5°	3	7	43 "
103.5° to 104°	4	8	50 "
104° to 104.5°	4	4	100 "
104.75°	..	..	.....
105.5°	1	1	100 "
107.2°	1	1	100
	64	200	.....

In this, as in the preceding table, only cases of first attack of rheumatism have been considered, for the same reasons as those already given. The result of this table shows that while those cases, in which there was no rise of temperature, were most exempt, the degree of rise of temperature in the other cases seems to have influenced very little the liability to cardiac complications.

TABLE W.—*Relapses.*

No. of cases.	Time after cessation of joint symptoms.	Duration of relapse.	Treatment of relapse.	No. of cases.	Time after cessation of joint symptoms.	Duration of relapse.	Treatment of relapse.
	Days.	Days.			Days.	Days.	
1	11	7	Sal. acid.	23	5	3	Salicylic acid.
2	6	14	"	24	9	13	" "
3	4	67	"	25	15	78	" "
4	4	3	"	26	10	5	" "
5	10	4	"	27	1	4	" "
6	6	2	"	28	3	5	" "
7	11	5	"	2d relapse.	8*	6*	" "
8	5	13	"	29	4	2	" "
2d relapse.	6*	14*	"	30	13	173	" "
9	11	28	"	31	2	1	" "
2d relapse.	15*	8*	"	32	3	1	" "
10	15	11	"	33	18	5	Rochelle salt.
11	19	7	"	34	10	7	" "
12	8	7	"	35	30	5	" "
13	7	2	"	36	14	21	Pot. iod. and colchicum.
14	10	40	"				" "
15	5	5	"	37	20	63	" "
2d relapse.	5*	4*	"	38	11	36	" "
16	4	51	"	39	11	1	Atropia.
17	2	4	"	40	4	7	"
2d relapse.	8*	15*	"	2d relapse.	12*	9*	"
18	4	1	"	41	4	7	"
2d relapse.	2*	2*	"	42	31	4	Rochelle and mur. am.
19	5	11	"				Quinine.
20	3	4	"	43	17	2	
21	3	1	"	Total	389	720	
2d relapse.	6*	2*	"	Average	9.046	16.744	
22	1	10	"				

Relapses occurred in 43 cases (while in hospital). *Percentage* of cases in which *relapses* occurred while in hospital, 10¾ per cent. There were not a sufficient number of cases which remained in the hospital any length of time after being cured to furnish tables, showing the liability to relapses, with or after the various methods of treatment.

* After end of first relapse.

OBJECTIONABLE FEATURES OF CERTAIN METHODS OF PROPHYLAXIS AGAINST PUERPERAL FEVER.

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THE importance of the recent papers, discussions, and editorial comments on the subject of the "Prevention and Treatment of Puerperal Fever" cannot be overestimated. It was a wise suggestion of Dr. Fordyce Barker, the President of the New York Academy of Medicine, to devote a second evening to the discussion of the most elaborate and authoritative paper of Dr. Thomas. The latter enunciated some propositions which are somewhat startling, and which, emanating from one of our most eminent obstetricians and clinical teachers, are destined to exercise a vast influence upon the practice of obstetricians. It is to be hoped that in the forthcoming discussion of this notable paper the most important features will not be overlooked as they were in the last discussion, immediately following the reading of the paper on December 6th, and that some authoritative support or opposition will be offered to the proposition that the process of parturition should in the future be made a more important event than it has been regarded in the past, and that she who is to bring forth will be treated as about to go through a capital operation.

As far as I am concerned, I confess that I was startled by this novel and important proposition from one to whom many of us are wont to look for guidance in our obstetric and gynecic difficulties, and I was still more surprised by the fact that the gentlemen who followed with remarks upon the paper tacitly accepted its opinion and teachings. I therefore, upon reading the report of this meeting of the Academy, wrote a "Plea against Prophylactic Injection after Normal Labor,"[1] in which I hastily sketched my reasons for opposing what I regarded the most objectionable feature of this and other previous papers on the subject, with a view to direct the attention of our obstetric teachers and practitioners to the possible dangers of a universal acceptance of the practice of injecting every woman who is passing through a normal puerperal period after a normal labor. I called attention to the pernicious effect upon the younger members of the profession by which such a method of prophylaxis may be followed, and urged a careful reconsideration of the subject, in order "to stem the tide ere it be too late."

In the discussion of Dr. Garrigues' paper in the County Medical Society, and that of Dr. Partridge in the Obstetric Section of the Academy, I again offered my reasons for disapproval of these injections, and I was rejoiced to note in THE MEDICAL RECORD of January 5, 1884, a lengthy editorial upon "The Prevention and Treatment of Puerperal Fever," which sustained me in my active opposition to prophylactic injections after normal labors. As the Society reports, and especially THE RECORD editorial—which, by the way, is the only editorial comment upon this most vital topic which I have noticed, have clearly presented my views upon this subject, I will only briefly recapitulate them here, by stating that I "offered my unqualified condemnation of prophylactic injections after normal labor," because in my limited experience they have proved harmful, because they have been known to produce dangerous symptoms, because they interrupt the quiet tenor of recuperative processes, and lastly, because they are in direct contravention of the principles and practice of modern wound treatment.

The able paper of Prof. Thomas has gone forth to the world and is now republished in various provincial medical journals as the teaching of a justly eminent authority. The weight of a great name lends additional import and enhances the influence which the skilful presentation and persuasive rhetoric of the author have naturally created.

[1] New York Medical Journal, January 5, 1884.

As I have said on a former occasion, only a strong sense of duty would prompt me to dissent from the views of an author for whom I entertain personally and professionally the highest respect, and whose counsel I am in the habit of seeking whenever I require it; but actuated by the conviction that his teaching on the subject is fraught with danger, I should be recreant to my duty as a physician were I to stand idly by and permit these views to pass unchallenged. This was my reason for taking the initiative in opposing prophylactic injections. I had hoped that ere this others would have been induced to express their views untrammelled by prejudice and undaunted by the weight of authority confronting them. But thus far I find myself feebly supported in the societies and entirely unsupported in the public prints, except by the valuable editorial in THE RECORD of January 5, 1884.

Feeling the courage of my convictions on this point, I desire to offer additional points to strengthen a position which, as I have shown, is sustained not only by theoretical consideration but also by clinical evidence derived from the greatest lying-in institutions in Germany.

The terrible picture drawn by the report of the Berlin Committee on puerperal fever, which is quoted with such telling effect in the paper of Professor Thomas, is, in my estimation, quite inapplicable to our country. If we may take New York City as an example (and it is well known that large cities present the greatest mortality from puerperal fevers), we are forced to the conclusion that the mortality from the dire malady is comparatively small.

I am indebted to the courtesy of Drs. Day and Nagle, of the Board of Health, for reports from which I gather the following valuable data.

Dr. Nagle "estimates" the number of "births not reported," in each annual report, as here indicated.

Summary of Births in New York City from 1876 *to* 1883.

YEAR.	Births.	Unreported births.	Still-births.	Total.
1876	23,744	7,914	2,290	33,948
1877	25,569	12,000	2,164	39,733
1878	25,529	12,000	2,192	39,721
1879	25,573	8,500	2,191	36,264
1880	27,536	16,000	2,362	45,898
1881	26,130	16,000	2,462	44,592
1882	27,321	16,000	2,658	45,979
1883	28,972	16,000	2,697	47,669
Total	210,374	104,414	19,016	333,804

Summary of Deaths from Puerperal Fever and Allied Diseases.

CASES.	1876.	1877.	1878.	1879.	1880.	1881.	1882.	1883.	Total.
Puerperal Metritis	130	124	115	130	140	152	123	143	1,057
" Fever	56	37	45	48	49	53	59	41	388
" Septicæmia	3	17	12	36	34	37	52	64	255
" Pyæmia	..	3	..	..	..	2	1	5	11
" Abscess	..	1	..	..	..	..	..	..	1
" Phlebitis	..	3	..	.	1	..	1	1	6
" Cellulitis	..	..	.	2	..	..	1	3	6
Total	189	185	172	216	224	244	237	257	1,724

These exact statistical records of deaths and nearly exact records of births offer unimpeachable testimony to the fact that the percentage of deaths from puerperal fever, even when all allied affections which may be grouped under this common nomenclature are included, is very small, less than two-thirds of one per cent. One-half of this mortality, too, is noticed in tenement and cheap boarding-houses, where the elements for the development of puerperal fever are in full operation. When we take cognizance of the fact that the mortality is the outcome of cases which have as a rule not been subjected to antiseptic prophylaxis, and that the ratio of mortality compares favorably with the ratio in the average of the best lying-in hospitals in Germany, where every legitimate precaution to avoid sepsis is studiously taken, we are brought to the conclusion that the necessity for active prophylaxis does not exist here to the extent which would be inferred from the report of the Berlin Committee on Puerperal Fever.

At all events, it must be confessed that we are not warranted in resorting to a method of prophylaxis, most of whose demands are impracticable, objectionable, not proven successful, and dangerous.

First.—Among those parturients in whom the greatest liability to puerperal fever obtains, viz., the pauper and tenement population, and among the indigent classes everywhere, the execution of prophylactic measures, especially of the injections, is utterly impossible. These people have not the means to obtain skilful nursing. That no ordinary nurse should be entrusted with such work is admitted by the advocates of these measures. Moreover, whether among the indigent or wealthy, the accomplishment of asepsis within the vagina is utterly impossible. The three per cent. solutions of carbolic acid, which have heretofore been so confidently trusted to effect the purpose, have been shown by Koch and others perfectly harmless to the spores of bacteria. A more striking illustration, however, of the impossibility of completely rendering the vagina aseptic, is afforded by the mechanical obstacles to the penetration of fluids to all parts of the vagina. They may be readily comprehended when it is remembered that the numerous folds and clefts within the genital canal may hide within their recesses myriads of germs and spores, which could only be dislodged by actual contact of the germicide by means of swabbing and forcible distention, measures which are surely impracticable. If it be necessary to resort to the most energetic scrubbing with brush and soap and germicide, and to the punctilious search for filth and germs under the finger-nails in order to render our hands aseptic, how much more necessary and imperative would become the unfolding of each ruga and fold and the gaping of each cleft of raw surface in the vagina and upon the cervix, if we would execute with any prospect of success a true antiseptic cleansing? I maintain that the latter cannot be consummated and has *never* been accomplished.

Second.—The entire practice of prophylaxis, based upon the idea that "the process of parturition should in future be made a more important event than it has been regarded in the past, and she who is to bring forth will be treated as about to go through a capital operation," is *objectionable* on account of the moral effect upon the parturient woman in particular, and all expectant mothers in general. Hitherto the prospective parturient has been cheered by her friends, who have assured her that parturition is a natural process which the physician is only called in to supervise and guide, and which almost invariably terminates in recovery. But when our women will see us order the removal of carpets, upholstery, and window-hangings, and the sprinkling of floors, mattrasses, beds, etc., with germicide solutions, when they will observe the busy injecting of the nurse, the idea will naturally arise in their minds that the doctor is extremely anxious, and that a natural process, which every woman has been taught to bear with fortitude and fairest prospects of recovery, is now regarded with solicitude and as fraught with danger which may be prevented only by energetic and formidable measures. Can any one doubt the result? Demoralization will surely ensue, and our women will approach their accouchement with fear and trepidation. The removal of curtains, portières, carpets, and upholstered furniture, those tasteful ornaments which a refined and cultivated woman deems as necessary to her comfort as her blankets and pillows, and which lend to the lying-in-chamber a charm which we unsentimental doctors even cannot resist, would be a serious deprivation. We are told that "they must be dispensed with, if possible." It is always possible to dispense with these luxuries, but what will be the moral effect of this "change" in her surroundings upon a delicate and sensitive nature? Throughout all

her life a refined woman has been accustomed to the presence of the ornaments which her means and her tastes have provided; she has observed that her friends have been in the habit of adding new embellishments to the chamber in which they were wont to pass the most eventful days of their lives, and she, too, has followed their example and has taken as much interest in the beauty of her curtains, the artistic elegance of her furniture, the rich designs of her draperies, as in the preparation of the trousseau of the expected visitor. Of these pleasures she must now be deprived; her chamber of sorrow must be arranged as if she were within the precincts of a hospital, and when she emerges from the agonies of labor her eyes must be greeted by naked walls, unfurnished windows and bare floors for days and weeks to come; nothing to cheer her but the assurance that the doctor says it is necessary for her safety. And after she has submitted to all those agonies of body and mind which to a sensitive nature the act of labor must bring, she must needs be subjected to the frequent approaches of the nurse with syringe, rubber cloth, and all the horrid paraphernalia of an injection. The word alone strikes terror into the mind of a young woman of delicate sensibilities who has probably never been treated gynecologically.

These may be sentimental objections, but all physicians whose field of action lies among the better classes will appreciate their force, and be alive to the difficulty of enforcing so stringent a prophylaxis. If the necessity exists, it is the physician's duty to be stern and inflexible. But so long as we can spare our patients annoyance, discomfort, mental or bodily pain, it is equally our duty to refrain from inflicting these. I claim that the necessity does not exist *under ordinary circumstances*. When an epidemic of puerperal fever is prevailing, these extreme precautions may become necessary and would be justifiable, but even in this event it would be far better to send the class of patients here referred to, to a distant locality free from those epidemic influences which at times seem to predispose to the development of puerperal fevers. True, it matters not how small the mortality may be, if by any measures it can be reduced, it is the physician's duty and highest prerogative to resort to them without stint of labor or trouble.

Third—The elements of an over-anxious prophylaxis hold out no promise of *success* in the prevention of puerperal fever. In a former paper (*N. Y. Medical Journal*, January 5, 1884) I have adverted to the fact that the best German obstetricians, among whom may be mentioned, Carl Brown, Spaeth, Breisky, Hegar, and Fehling, have abandoned the most prominent element, viz., the injections, in normal cases; they only resort to them when indications arise, as fever, fetid lochia, or after operative or protracted labors.

Since Semmelweis introduced strict cleanliness into the Vienna wards, and reduced the mortality from fifteen per cent. to two per cent., the importance of preventing the entrance of filth and disease-germs into the lying-in chamber has been recognized by all educated obstetricians. The solution of chlorine which Semmelweiss used offered no greater security against actual disease-germs than is effected by the later resort to three per cent. carbolized solutions. It was, after all, his precise and stringent rules against appearing in the lying-in wards after passing through the post-mortem or dissecting rooms, and the enforcement of greater cleanliness among the attendants in contact with the parturient woman, which accomplished the wonderful results. The same practice has been followed by success since the time of Semmelweiss, until the more recent energetic uterine and vaginal injections became the ultra-antiseptic practice. The latter was not long followed in Germany ere reports of deaths and fever cases aroused the attention of the more conservative obstetricians to the fact that they had passed beyond the bounds of safety. The reaction which now exists in Germany against uterine prophylactic injections and which is rapidly developing against vaginal prophylaxis also, bears witness to the fact that this method of prophylaxis has not been attended with success.

There have been no clinical nor statistical data brought to the elucidation of the question of the utility or success of prophylactic injections in the normal puerperal period. Neither hospital nor private records have been cited by our most prominent advocates of this treatment, while, on the other hand, the clinical evidence of some German lying-in hospitals and of the New York Maternity (Charity) Hospital have clearly demonstrated their inutility. In his paper on "Prevention of Puerperal Infection,"[1] Dr. Garrigues describes the sad condition of affairs in his institution. "It used to be rather an exception than the rule to see a perfectly normal lying-in period. I was myself on duty during the first three months (1883), in which 108 women were delivered, 11 of whom died. During the six months from October 1, 1882, to March 31, 1883, in which I was on duty last, 192 women were delivered, and 46 of these were seriously sick, 39, or almost one in five, of inflammatory puerperal diseases." Dr. Garrigues states in another portion of this paper that he has for the last eight years used carbolic acid for vaginal injections twice during the first week after delivery, etc. I quote Dr. Garrigues' experience as evidence of the inutility of these injections, although they were not cited by him for the same purpose. They tell their own tale and need no rhetorical adornment. While in surgery the antiseptic methods are followed by almost invariable success in the prevention of septic troubles, so that Volkman's tables read almost like fairy tales, this method has been far from equally successful in puerperal prophylaxis, because, as I have shown elsewhere, the traumatic surfaces after labor are not allowed to rest from antiseptic interference, while in the surgical treatment of wounds the strictest abstention from disturbance is practised. Again I plead for implicit obedience to the course adopted by modern surgeons. Only by this method will true prophylaxis be enforced.

Fourth.—The danger of prophylactic injections in the normal puerperal period has been pointed out by many authorities. Max Runge, Kehrer, Fischel of Breisky's clinic, and others have emphasized them. They have shown that fever processes have been kept up by them, that collapse and shock have been produced, etc.

My own experience, although limited, warrants me in condemning this practice. During my residence in the South I never observed a case of true puerperal fever, although my obstetric practice was large, approximating nine hundred cases, with all the usual complications. Difficult labor cases frequently came under my observation in negro practice, in which midwives usually officiate; hence my proportion of complicated labor cases was unusually large. Presuming that this immunity was due to a great extent to the better hygienic surroundings of my Southern patients, and realizing the different sanitary environment of my present clientèle, I espoused readily the views impressed upon me by my friend Dr. Wylie and others, that antiseptic injections are necessary to prevent puerperal fever, etc., and adopted them as a routine practice. Having already recorded my experience elsewhere, I will refer to it here only to make this paper complete. I had the misfortune to observe six cases of fever, whose advent on the fifth, sixth, eighth, and ninth day was inexplicable to me on any other supposition than the idea that they were of septic origin and due to the tearing of the recently healed surfaces by the frequent injections. I could not resist the idea that septic material had been introduced by the nurses. All these cases occurred in healthy localities, five of the patients occupying houses in which no other families resided. A suspicion of malaria was disposed of by the fact that, while the cases resembled the severe type of remittent sometimes ob-

[1] N. Y. Medical Record, December 29, 1883.

served in the South, the diagnosis was made clear by reference to the differential symptoms, mentioned in a recent contribution on this subject.[1] No case of malarial fever of so severe a type had ever been observed by myself since my departure from the South, nor had I seen a case of malarial fever of any type in the vicinity or among the residents of the houses occupied by the patients. The recurrence of fever processes during the puerperal period, without other assignable cause, aroused my suspicion that the injections were the cause, and so soon as I carefully reasoned upon the various aspects of my cases, I desisted from the practice altogether. I doubt not that many fever processes which occur in the practice of the advocates of prophylactic injections are referred to other causes. I, too, was unwilling to charge them to the injections until their too unpleasant repetition forced the conclusion upon me, and this will very probably be the experience of others. I have the satisfaction of having made a convert already of one of our ablest physicians, who opposed my views when they were first published. A recent case of fever, directly traceable to a vaginal injection by a most competent nurse, has shown him the error of his ways and caused him to reflect upon the subject. He has candidly acknowledged that he would no longer resort to prophylactic injections in normal puerperal conditions.

The experience of Dr. Garrigues may also be cited in support of the view that injections after labor are dangerous, producing or keeping up fever processes. Despite his most active antiseptic prophylaxis, this careful observer was forced to admit that a large and very serious percentage of puerperal fever processes continued, and that the mortality rate was still unsatisfactory. But so soon as he adopted the course of abstaining from the only injurious element of his prophylactic method, "the vaginal injection twice daily," a complete change occurred. "The effect of the described treatment has been wonderful; as if by magic all trouble disappeared. Ninety-seven women have been delivered since its introduction, and not only have none of them died, but there has scarcely been any disease among them."

True, Dr. Garrigues, like all originators of an instrument or appliance, attributes his success in a great measure to his antiseptic pad. He claims that the latter obviates the necessity for preventive injections, which "become superfluous, and *thus one great source of infection is avoided.*" I would not say aught in opposition to any measure or appliance which will keep the dangerous nurse and syringe away from the genital canal, and if for no other reason than this most vital one I would advocate the adoption of Dr. Garrigues' antiseptic pad as a most useful and promising advance in prophylaxis. But in the discussion of the aspect of the question which is under consideration, viz., the danger of these injections, I refer with confidence to Dr. Garrigues' records before and since the adoption of the pad and *abolition of preventive injections.* Few judicial and discriminating obstetricians will fail to accept the marked success more as an evidence of the harmfulness of the injections in the first series of cases than as a demonstration of the value of the pad in the second series. Doubtless the extreme antiseptic cleanliness introduced by Dr. Garrigues, the guarding of the patient against meddlesome nurses and students recently from dissecting-rooms, the changing of rooms, the germicidal treatment of furniture and bedding (which, in a filthy hospital, is of paramount importance), all these admirable measures, so candidly and instructively described in his paper, contributed to the happy consummation. He has culled the better elements of antiseptic prophylaxis and he has rejected the pernicious injections; hence the gratifying results. Among the thousands of physicians in cities, towns, and rural districts who have a large obstetric practice, the view of the inutility and harmfulness of prophylactic injections in the normal puerperal condition, which I here endeavor to enforce, will need no argument. Their own experience, illustrating the rarity of puerperal fever, even when no preventive injections have been practised, will guard them against this innovation. Among the less experienced members of the profession the latter will receive acceptance, because it comes from an authoritative source and because it has remained comparatively unchallenged.

Upon these gentlemen I would urge a careful consideration of my views on this subject. In my humble opinion, prophylactic injections, either germicidal or of simple water after normal labor, and in the normal puerperal period, will prove a veritable Trojan horse, admitting the enemy whom we are energetically striving to deny entrance into the precincts of the vagina, and thus letting loose the destructive elements among the torn and raw surfaces, which expose the open lymphatics. I would not, however, be understood to antagonize antiseptic prophylaxis and antiseptic treatment in obstetrics. As I have written on a former occasion, "the fourth, fifth, sixth, and even the seventh clauses of Dr. Thomas' 'Prophylactic Measures' are admirable, and cannot be too strongly insisted upon." But I would urge most earnestly that the removal of carpets, upholstery, furnishings of windows, etc., and the injections in normal puerperal conditions are objectionable, and may prove harmful for the reasons stated above.

158 West Fifty-Fourth Street,
February 5, 1884.

[1] The Differential Diagnosis of Malarial Fever, by Simon Baruch, M.D. N.Y. Medical Record, January 5, 1884.

Progress of Medical Science.

Therapeutic Value of Lobelia Inflata.—Dr. Fournier has used lobelia to a considerable extent in his practice for the past twenty years in cases of asthma, phthisis, and pulmonary congestion. He has not found very much advantage in its use in simple asthma, but in cardiac dyspnœa, in doses of fifteen to thirty minims of the tincture per diem, he has obtained good results as a rule. In suffocative attacks occurring in the later stages of phthisis, when all other remedies failed, this drug was often of the greatest service. It was given in a mixture of one-half drachm to eight ounces of water, a tablespoonful every hour. The author relates some cases of sudden dyspnœa occurring in the aged in which lobelia seemed to be of the greatest value. These attacks occur very suddenly; the patients are asphyxiated and pulseless and seem to be on the point of death, and indeed the termination is usually fatal. Dr. Fournier regards them as due to congestion of the lungs from paralysis of the vasomotor nerves. In congestion from other causes the influence of lobelia is slight.—*Bulletin Général de Therapeutique*, No. 47, 1883.

Sudden Death following an Injection of Morphine in Angina Pectoris.—Dr. Runeberg relates the case of a man who suffered from frequent attacks of angina pectoris, but who appeared to be perfectly healthy in the intervals, and in whom nothing abnormal could be discovered concerning the heart. Dr. Runeberg saw him in one very severe attack which had lasted then twenty-four hours. He was very restless and complained of severe pain in the precordial region. In order to lessen the pain and to make an examination of the heart more easy, the author gave him a subcutaneous injection of one-fourth grain of morphine. A few minutes later the patient gave a shudder, opened his eyes (the pupils were widely dilated), and, after two or three sighing respirations, died. The autopsy showed a dilated heart, in the walls of which were numerous points, some hard and cartilaginous, others soft and of a reddish-yellow color. The aorta and coronary arteries were atheromatous.—*Finska Läkaresällskapets Handlingar*, vol. xxiv., No. 4.

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THE PREVENTION AND TREATMENT OF PUERPERAL FEVER.

THE discussion of Dr. Thomas' paper in the Academy on February 7th presents several points of interest which our readers will appreciate in connection with the editorial comments on the same subject in our number of January 5, 1884. The latter aimed to present a judicial *résumé* of the discussion in our several societies up to that date, and more especially to direct attention to several features of the subject which had not received the consideration to which their importance entitled them in the Academy, viz., the pathology and certain elements of the prophylaxis of puerperal fever.

On the subject of pathology Dr. Barker was not supported in his opposition to the septicæmic theory of puerperal fever. He refrained from entering into an examination of this question, but referred to his published views in the work on "The Puerperal Diseases" for the arguments in favor of the "existence of a distinct disease, most appropriately denominated puerperal fever, when, if there be any septicæmia, it must be a consequence of a primary disease, and not a cause."

As the work belongs to the classical literature of the profession, it is well known that Dr. Barker presents a masterly and learned analysis of the various puerperal inflammatory affections, fortifying his position by a candid and thoroughly fair review of every author of note who has contributed to the knowledge of the subject. He recognizes a puerperal peritonitis, metritis, phlebitis, cellulitis, septicæmia, and pyæmia, but differentiates between these and a puerperal fever *sui generis*. In the treatment of this subject he differs from the almost universally accepted views of the present day, chiefly in his denial of the necessary connection of a septicæmic element in the etiology of these affections (except in the pure type of puerperal septicæmia which he delineates), and in the maintenance of the position that the puerperal septicæmia is mainly observed in hospitals, and forms but a very small proportion of the mortality in private practice. On the latter very important point no argument was advanced in rebuttal, and it would seem the proper scientific course to discuss this question from the standpoint of its able advocate. As the large preponderance of clinical material on this disease has hitherto been obtained almost exclusively from hospital records, may there not be an element of error on this point, which could be eliminated by reports from private practice, as that of the epidemic of 1873, referred to by Dr. Barker, in which he studied ninety cases among "that class of society possessed of abundant means"?

On the other hand, it cannot be denied that even among wealthy people the septic element may be introduced by careless doctors and nurses in so occult a manner as to escape detection. How many operating gynecologists will follow Dr. Thomas' praiseworthy example, of thoroughly disinfecting his entire person and changing every particle of clothing, after visiting a case of puerperal fever? And here Dr. Barker's remark may well be heeded: "Indeed, one can hardly understand how such a surgeon, who accepts the theory and believes in the necessity of such a prophylaxis and such treatment as is insisted upon in the paper under discussion, would ever dare to enter the room of a puerperal woman." Only the most thorough disinfection would justify such a surgeon.

There can be no question that the acceptance of the septicæmic theory of puerperal fever is a great stride in advance, inasmuch as the difficulties of diagnosis between the various affections now termed puerperal fever are swept away, *without detrimental influence upon their therapeusis*, and this point is amply illustrated by reference to Dr. Barker's lectures.

It is a noteworthy fact that fifteen years ago this clinical teacher strenuously insisted upon the antiseptic treatment which is now recognized as a great advance and which is almost universally adopted, *in each and every one of the affections* which are now grouped under the term "puerperal fever." A few quotations will perhaps be of interest, in view of the fact that so learned an authority as Dr. Thomas was "not aware that Dr. Barker had made use of intra-uterine injections, and described how they should be used, in the book referred to."

Puerperal phlebitis.—Cleanliness having been strenuously insisted upon in the preceding page, the author says: "I have one suggestion to make, but I regard this as one of great importance. I refer to vaginal injections of warm water and carbolic acid (p. 299).

Puerperal metritis (p. 320).—"Throughout the whole treatment of puerperal metritis I regard vaginal injections as absolutely essential. Recently I have generally used the carbolic acid (formula given). If the lochial discharge be purulent, or particularly if the odor be offensive, the injections should be used four or five or six times a day, great care being taken to instruct the nurse how to use this without annoying the patient. If the discharge be positively fetid, we must not rely on vaginal injections alone, but must resort to their use within the cavity of the uterus. It is my belief that intra-uterine injections should be administered with the greatest care and always by the physician himself." The remainder of the chapter is devoted to the consideration of the methods of these injections, their dangers and the prevention of the latter, all of which have been so ably emphasized in Dr. Thomas' paper, and in the recent reports from Vienna and Prague.

Puerperal peritonitis (p. 351).—"I regard vaginal injections (carbolic acid ʒj. to Ōj. water) as very important in this as in many other of the puerperal diseases. If the lochia be very abundant and fetid the proportion of carbolic acid may be doubled or even quad

rupled, and the injections should be used every six or eight hours."

Puerperal septicæmia (p. 409).—"Vaginal antiseptic injections should be thoroughly used two or three times a day. The necessity and propriety of intra-uterine injections should be carefully weighed and a decision made," etc.

Puerperal fever (p. 504).—"If I have quite failed in giving clear expression to my views in former lectures, it will be useless for me now to point out to you the importance of antiseptic vaginal injections, or to tell you how and when intra-uterine injections are to be used."

It will be seen, therefore, that even in the pure form of puerperal fever Dr. Barker dwells with emphasis upon the necessity and value of antiseptic injections. The general treatment inculcated in all these puerperal diseases—consisting of measures to sustain the vital powers, to reduce inflammatory action, to allay pain by hypodermics of morphia—together with the local antiseptic measures and enforcement of strictest cleanliness, so clearly and strenuously insisted upon in these lectures, place Dr. Barker's therapeutics of fifteen years ago on the precise platform of the conservative obstetricians of the present day.

Whether septicæmia be regarded as a primary or secondary element in puerperal fever matters little, if the *treatment* be the same. Perhaps the remarkably small mortality in New York City from puerperal fever is due to some extent to these early teachings of Dr. Barker, and presumably of other lecturers.

Dr. Lusk dwelt upon the influence of the round bacteria as a means of rapid diffusion of the poisons in certain cases of puerperal fever, and emphasized his belief that germicide injections would be of no avail after the tissues had been invaded by these enemies.

Dr. Mundé also avowed his opinion that much harm may, under these circumstances, be done by continuing the uterine injections.

The debate upon the subject of "Prevention of Puerperal Fever" brought out a decided difference of views. Dr. Barker's paper contained a vigorous arraignment of the active prophylaxis of the extreme septicæmists. Invective, wit, and sarcasm levelled their batteries at the paper under discussion, creating an effect which not only left its impression upon the audience but which will serve to restrain many obstetricians from the adoption of *extreme* prophylactic measures.

The practical outcome of this part of the discussion is of immense import to the profession.

In our editorial remarks of January 5th, we took occasion to say, "How far shall the recommendations of the eloquent speaker at the Academy be adopted? Shall the general practitioner, everywhere, religiously obey the instructions given by Dr. Thomas in his prophylactic measures? This is the question at issue now." We endeavored to show that the most unpromising measure advocated by Drs. Thomas and Wylie was the administration of vaginal injections in the normal puerperal period of all cases in hospital and private practice. This measure had been vigorously opposed by Dr. Baruch, whose argument in the County Society and in the Obstetric Section of the Academy we quoted with approval. We endeavored to show that Dr. Baruch's arraignment of these unnecessary injections was amply justified.

And it is gratifying to us to learn that Dr. Barker made an able defence of our views on this important subject, and fortified his attack upon these prophylactic injections in the normal puerperium by a recital of the results of his large experience in private and hospital practice. In the remarks following the reading of his paper, he entertained the Academy with a rapid sketch of his experience with these injections, offering his reasons for their cautious and gradual abandonment, to which he was led by the observation of disturbances and interruptions during the first week of labor which he traced to them. Since September, 1882, he has rarely found it necessary to order these prophylactic injections, and since their entire abandonment the results have been more satisfactory. This testimony from one who has probably been among the first to advocate antiseptic injections, enforces the argument against prophylactic injections most effectively.

Dr. Mundé does not object to these injections, because he regards them as harmless, but he would condemn them most emphatically when applied within the uterus.

The closing argument of Dr. Thomas was a masterpiece of polemic art, bristling with pleasant repartee, gentle irony, and good-humored thrusts (in response to Dr. Barker's effort), which elicited genuine applause, and altogether was one of the finest efforts of the eloquent speaker.

One by one, the objections to the prophylactic measures of his paper were examined by Dr. Thomas, and each was ably defended. The more extreme measures, involving much time and trouble and "subjecting the patient to the hazardous depression of intense anxiety and fearful doubts as to results, and surrounding her with the vivid apprehension of her family" (Barker), were justified by the argument that it is necessary in a matter of such vital importance to erect a high standard. Dr. Thomas did not attempt to defend his recommendation that "curtains, carpets, and upholstered furniture must be dispensed with as far as possible." We are reminded of this fact by a communication in another portion of this number, which appears to us to take a rather extreme view of the consequences of this prophylactic measure, whose recommendation was doubtless the offspring of a desire "always to give a high standard."

We are rejoiced to find that Dr. Thomas confesses to "a change of heart" on the subject of vaginal injections. He said that he felt a little weak in regard to their propriety in view of the evidence which had been brought out against them, and that he had lately omitted them, even in a case of artificial labor; that in laying down rules in the paper which he had presented he simply gave what seemed to him desirable, but he was willing at any time to discard any part of them as soon as they were shown to be rash or injudicious. This admission on the part of Dr. Thomas does him infinite credit, in that it evinces the true scientific spirit.

It is to be hoped that the arguments urged by the opponents of these injections, together with Dr. Barker's and Dr. Thomas' abandonment of them, after careful and conscientious experience, will serve to seal the fate of prophylactic injections, uterine or vaginal, after normal labors and in normal puerperal conditions.

HOSPITALS FOR INCURABLES.

PROBABLY no thinking man will deny the truth of the statement which our genial Professor at the Breakfast Table long since elaborated in his own inimitable style, that "the learned professions have but recently emerged from a state of *quasi*-barbarism." Certainly no member of our own guild who is at all familiar with the trend of medical science can close his eyes to the mass of tradition which still clings to its skirts, or can fail to trace the baneful influence of many a time-worn fetich. Take, for example, the customary treatment of the infirm and hopelessly ill by the primitive savages here in America. They were simply taken to a retired place and left to die, if they escaped the other alternative of more heroic measures by means of a war-club. Now, candidly, although the analogy may at first sight seem a trifle strained, do we not neglect our great incurable class of patients in much the same way? Our treatment is virtually the same in kind, though, fortunately for the patient, the fashion of the day does not permit the same radical expression of enthusiasm in efforts to secure the "survival of the fittest." The effect of each policy is, however, uniform. The barbaric process of natural selection is scientifically preferable on the ground of being really more merciful to the patient and more immediately beneficial to the community, than the modern method.

But whatever be the causes which have combined to develop this surprising apathy in regard to the claims of a large proportion of suffering humanity, the unfortunate fact remains; the evil does exist. Those who are acquainted with the workings of our city hospitals need no words from us to tell them that there is not adequate and proper provision for our incurable cases. A very natural explanation immediately suggests itself in the case of all general hospitals which are not distinctively city institutions. Such hospitals must and should be conducted on the general plan of the greatest good to the greatest number. They cannot afford to extend the privileges of their wards indiscriminately, else their beds would soon be filled with a series of slow chronic cases, nine-tenths of whom could never be cured in the end, to the exclusion of a multitude of others to whom rapid relief could be offered. At a rough estimate, a dozen active, vigorous lives, intrinsically valuable to society, could be saved from death or disability in the same stretch of time consumed in the care of a single phthisis patient. Practically, for one reason or another, a trifling percentage of those who apply to any institution gain admittance. The rest either continue to drag out a dismal existence at home, or after more or less delay, bring up eventually at the city hospitals. Here, as elsewhere, whether from a sense of helplessness to afford relief, or from the absence of any active interest in a tedious and protracted case, they are put on a routine treatment and practically consigned to the supervision of the nurses. There are, to be sure, one or two small resorts for different classes of chronic invalids, but from obvious causes, these are entirely unavailable to the great mass of these unfortunates. For our part, we should vastly prefer the perfunctory swiftness of the aboriginal apotheosis to months of torture in a reeking tenement house, even with the only alternative civilization can offer, a pauper bed to die in at last. In common charity let there be a reform in this matter, or let us be humane enough to go back to starvation and the war-club.

We, who stand as sponsors for the public health, the sworn defenders of the sick, should make known this crying want with no uncertain voice. The responsibility plainly rests with us; and it is all the more urgent because the common instincts of humanity, the health of our children's children, and the claims of progressive science, unite in the appeal. Here and there a few noble-minded persons have attempted to meet the crisis, a notable example being the phthisis pavilion in connection with the University Hospital at Philadelphia. But as yet such encouraging instances are painfully and shamefully few. Public sentiment must be aroused, educated if necessary, and organized action inaugurated, to insure any definite and far-reaching results.

It has been suggested, in the way of conservation of energy here in New York, that the corporations of our several private institutions devise some general plan of organization, by which some one of them be constituted a chronic hospital, to which the rest might each contribute their share of patients. But there are many manifest objections to the expediency and practicability of such an experiment, chief of which is that such a hospital would require a suburban situation. A more feasible plan would be to obtain or build an institution as commodious as our principal asylums, within easy access of the city, yet retaining all the advantages of country air and surroundings. To this hospital any general hospital might transfer, either by a special ambulance or by ticket, their chronic and incurable patients. These institutions would thus be relieved of the burden of a variable number of cases, which constantly interfere with their proper hospital work, and proportionately limit their sphere of usefulness.

The benefits which would thus accrue to the poor patients themselves can hardly be estimated. Once in working order, such a hospital could with a little tact be made largely self-supporting, just as the army hospitals were to a great extent during the war, and as our asylums are at present. Light work in the open air would be therapeutically most important to many patients, while any in-door occupation that would keep the mind of the sufferer away from his bodily ills, would be of almost equal benefit. Advanced cancer cases, phthisis cases, and various forms of rheumatism and nervous disease, would naturally comprise the bulk of the inmates. The mere isolation of these from their social relations would only be in the direct line of our duty in respect to the prevention of disease, not only in its immediate, but hereditary, effects. Every one of these maladies has long been an *opprobrium medicorum;* who can tell what secrets might not be wrested from nature by a continuous and scientific study of them collectively. It would at least furnish a training-school, for which the profession has long shown its need. Our students are thrown into general practice with the crudest ideas of the practical management of the bewildering *minutiæ* of chronic cases.

The profession surely ought to take this matter more to heart. If the public are once impressed with the existence of this evil, the means to obviate it will not be

long forthcoming. If we recollect rightly, this very subject was recently agitated by a number of our resident philanthropists. We most earnestly hope that the scheme is still only in abeyance, and has not proved abortive. It certainly ought not to fail from lack of support from the profession of medicine.

A NEW ANÆSTHETIC, BROMOFORM.

At a meeting of the Society of Physicians of Vienna Dr. Caj. Freiherr v. Horroch reported the results of some experiments with bromoform.

This bromoform was discovered by Löwig in 1832. It is prepared from the hydrate of bromal, by the addition of an alkali. It is an oily, colorless liquid with a pungent ethereal and aromatic odor and a sweetish taste. It boils at 151° C., is soluble in warm water and ether.

The physiological action of bromal was first tested by Dr. S. Steinauer (*Virchow's Archiv*, May 19, 1870), who found that it relieved pain and produced sleep. He attributed the action in part to the formation of bromoform. The action of bromoform itself was tested by Dr. Horroch (*Allgemeiner Medicin. Zeit.*, No. 3, 1884) in three series of experiments—first, by inhalation; second, by hypodermic injection; third, by giving it by the mouth.

In the inhalation experiments it was found that narcosis was easily produced in animals; the anæsthesia being complete, and the excitation stage short and of a mild form. After recovering from the anæsthesia the animals did not vomit and appeared well.

Hypodermic injections of one gramme of bromoform produced in large animals complete narcosis, lasting for an hour. During this time the temperature fell from 2° to 4° C.

The internal administration of bromoform in doses of one to one and one-half grammes produced sleep of several hours' duration.

The animals experimented upon were rabbits and cats, and the physiological effects upon these animals may be summed up as follows: The respiration is not notably affected. The pulse continues strong, regular, and of ordinary frequency. The peripheral ends of the vagus retain their irritability. The blood-pressure is diminished. Reflex excitability is entirely abolished, and irritation of the sciatic nerve failed to effect any changes in blood-pressure. In very profound narcosis the cortical brain-centres lost their irritability. The temperature of the animals sank in dogs 3.5° C., in rabbits about 4.5° C.

As to the value of bromoform as an anæsthetic in surgery, four experiments had been made upon adults in Professor Albert's clinic. Three men had been successfully anæsthetized. In these cases the excitation period had been short, the patients did not cry or struggle. The stomach was not disturbed. Children had been easily anæsthetized.

On the other hand, bromoform, as an anæsthetic, appeared to be milder than chloroform, and its vapors were somewhat irritating to the respiratory passages.

A PLEA FOR THE PHARMACOPŒIA.

At the meeting of the New York State Medical Society Dr. Laurence Johnson made a very timely plea in favor of the greater use of the pharmaceutical preparations instead of those now so industriously forced upon the profession by irresponsible manufacturers. The very cogent reasons for urging this plea were set forth in our report of the meeting. Few physicians can fail to have been impressed of late years by the frequent visits of the agents of wholesale druggists, who politely leave their samples and their pamphlets with a request to be remembered. It has resulted that many doctors are recommending and using unofficinal preparations, of which the character and composition are but vaguely known, and which vary with the druggist. If the practice continues there will be an increased difficulty in collecting experiences and arriving at definite clinical results. Manufacturers, also, often abuse the commendations of physicians and finally get their wares on general sale before the public.

We do not go so far as to discourage the use of officinal drugs or preparations legitimately made up in accordance with given formulæ by wholesale manufacturers. It is often of convenience to the physician to be supplied with these. There is no doubt that the plan pursued by some homœopaths of furnishing certain of the simpler medicines to patients is a profitable one. But it is the "compound syrups," the mystic elixirs, concentrated extracts, normal liquids, the "idias," and "ines," which are becoming a source of demoralization and danger. We say, therefore, to our readers, stick to the Pharmacopœia and the drugs and preparations in it. If a doctor cannot succeed with these, he must fail anyway, or else become a quack.

THE GENERAL PRACTITIONER AND HIS STUDENT.

Some time ago we called attention to the fact that the general practitioner had a very heavy responsibility as regards the admission of fit persons to the ranks of his profession. We said then, what is very well known, that many were in the habit of taking any students who came along, without reference to previous education or fitness. For the doctor feels a little flattered at being able to say that he has students at his office. The result is that the general practitioner is directly responsible for a very considerable part of the load of unfit persons which now weighs upon the profession.

We have just received notice of an attempt at reform in this matter which we can heartily commend.

The Trumbull County Medical Society, of Ohio, at its meeting January 31st, passed a series of resolutions which provides for securing a preliminary examination of all proposed students of medicine who enter the offices of the members of the society.

A board of examiners is appointed before which all applicants for admission as students of medicine under the tuition of members of the society must pass a satisfactory examination in fourteen different subjects. The examination is in fine about the equivalent of that demanded for admission to a classical college.

The society further resolved "that the time of study required by members of this society shall be five years, including lectures;" and that "members of this society shall recommend their students to attend only such medical colleges as either require an examination for admission similar to the one required by this society, or make the full three years' graded course of study

obligatory for graduation therefrom, and otherwise endeavor to elevate the standard of medical education."

The society requests the Ohio State Society and the other county societies to adopt the above schedule.

We need hardly say that the action thus taken by the Trumbull County Society is most creditable, and will be widely approved. It may be found difficult to carry it out in its entirety at first, and perhaps some modifications of the plan may be needed. But it aims to throw some responsibility for the status of the profession upon the general practitioner, and thus will prove, we believe, wise and useful.

DOCTORS IN THE NORTHWEST.

THE Chicago *Tribune* a short time ago published a lengthy and carefully prepared article upon medical education and medical practice in the Northwest. The statistics collected showed that the ratio of physicians to population was rather greater in this section than in the South, or in some parts of the East.

We give some of the more interesting facts that are presented.

First is a table showing the number of the population and of the medical men in Western States :

	Population.	Doctors.
Illinois	3,077,871	5,899
Indiana	1,978,301	4,993
Iowa	1,624,615	3,035
Kansas	996,096	1,964
Michigan	1,636,937	2,924
Minnesota	780,773	914
Nebraska	452,402	807
Nevada	62,266	134
Wisconsin	1,315,497	1,549
Dakota	135,177	212
Montana	39,159	77
Idaho	32,610	51
Wyoming	20,789	30
Colorado	194,327	570
Missouri	2,168,380	4,550
Totals	14,515,200	27,709

This table, says the *Tribune*, shows the proportion to be nearly one to 524—the like of which is not to be found within any equal area of the earth's surface. Since then the manufacture of doctors has proceeded at an increasing rate. The forty-two medical schools within these limits—leaving out of account students who attended Eastern colleges—have in the last three years granted the title of Doctor of Medicine to 5,364 persons, and there are from these same States 3,549 students in the various colleges of the country preparing for the practice of medicine. The figures show the country to be full of doctors. Indeed, every cross-roads where a grocery and blacksmith-shop are located has the shingle of a medical man in plain view.

In the cities the crowded state of the profession is still more marked, as the following table demonstrates :

	Population.	Doctors.	One to
Chicago	503,185	918	548
Denver	35,629	137	260
Detroit	116,340	248	469
Indianapolis	68,538	264	259
Kansas City	55,785	167	332
Milwaukee	115,587	141	819
Minneapolis	46,887	121	387
St. Louis	350,518	738	475
St. Paul	41,473	75	553

The interesting statement is made that, of something over 90,000 physicians now in practice in the United States, only 8,300 are over 60 years of age. The vast majority are young and middle-aged men, who now control the bulk of the medical business.

As regards the colleges, there are, as is known, about 120 in the country. Of these only 22 require three or more courses, only 71 exact preliminary education or its pretence, and the length of courses is as follows :

Weeks in Course.	Regular.	Homœopathic.
34	6	1
30	4	..
28	2	..
26	1	..
24	12	3
20 to 23	60	3
19	10	1
18	3	..
17	2	..
16	4	..

AN INTERESTING QUESTION IN A CHARGE OF MALPRACTICE.

IN a case tried not very long since in Pennsylvania, where the issue was the liability for alleged malpractice in the treatment of a fracture of the lower third of the tibia and fibula followed by necrosis of the bone, a physician was called for the defence and asked to give his opinion as to whether the limb had been skilfully or unskilfully treated. He was also asked whether or not the limb was in as good a condition and the results were as good as the average run of cases of compound comminuted fracture of the leg that are treated in a skilful manner by skilful physicians, and whether in cases of such fracture followed by necrosis of the bone there is not almost always great deformity? All these questions were excluded by the trial judge, but on appeal they were sustained as proper and a new trial granted. The Court said : "The limb evidently deformed was shown to the jury, and the course of treatment to which it had been subjected was fully described by the witnesses. The inference sought to be drawn therefrom was that careless and unskilful treatment was the cause of the deformity. Hence it was vitally important for the defendants to satisfy the jury that such was not the case ; that, on the contrary, the condition of the limb as exhibited to them was the result of the severe injury the plaintiff received, followed, as such injuries frequently are, by necrosis ; that the limb was in as good condition as could ordinarily be expected in such a case, when properly treated by a skilful surgeon. In determining whether a disease or an injury has been treated with proper care and skill, courts and juries must depend mainly on the testimony of experts, and considerable latitude must necessarily be given in the examination of such witnesses and in propounding hypothetical questions for their opinion. The testimony proposed was competent and the witnesses should have been permitted to answer."

THE ACCIDENT TO GENERAL GRANT was of a more serious character than had been supposed. Although he soon recovered from the effects of the immediate injury, he has since suffered from rheumatism and pleurisy, and is still an invalid, though convalescent.

News of the Week.

DR. G. HALSTEAD BOYLAND has been obliged to resign the Chair of Surgery in the Baltimore Medical College on account of laryngeal trouble, and is spending the winter in Florida.

A NEW ENGLAND CREMATION SOCIETY was organized in Boston recently.

TO INVESTIGATE THE UTICA INSANE ASYLUM.—A resolution was introduced into the State Assembly last Monday, asking for an investigation of the recent death in the Utica Insane Asylum.

ORGANIZATION OF AN INTERNATIONAL SANITARY LEAGUE.—We have received from Dr. Van den Corput, editor of the *Journal de Médecine et Chirurgie de Bruxelles*, a copy of a proposition which he laid before the Colonial Medical Congress last summer. The author urges the formation in different countries of a permanent service of official information concerning the public health, and the creation of stations or bureaus for sanitary and hygienic information.

DR. E. C. SEGUIN, of New York, has been elected Associate Member of the Société de Biologie of Paris.

THE *Weekly Medical Review* has been chosen the organ of the St. Louis Medical Society. This is a compliment to our valued contemporary which it very well deserves.

THE REAL AND ONLY DISCOVERER OF THE GERM OF CHOLERA, according to the *Nashville Journal of Medicine and Surgery*, was Dr. W. D. Dorris, of Nashville, who, in 1851, "astonished his co-laborers by the announcement that this terrible disease was caused by a *gnat*." This gnat Dr. Dorris found always present in and about the victims of cholera. They were about one-twelfth "smaller than the ordinary night or black gnat, and had a body of a grayish color, with a tinge of red at the point of the wings." Our contemporary contends for the prior claim of Dr. Dorris with great seriousness.

BIRTH OF QUADRUPLETS.—Dr. G. H. Coburn, of Frederickton, New Brunswick, reports in the *Canada Lancet* the case of a multipara who, on December 12th, was delivered of four living children. One of them only lived two hours. The presentations were all "breech," and each child had a separate placenta. The mother convalesced well. The infants were small, each weighing about two and a half pounds, and they all died within the month.

THE GARFIELD HOSPITAL.—At a recent meeting of the incorporators, says the *Philadelphia Reporter*, it was announced that the total cost of the property, together with the sums thus far authorized to be expended for improvements, would amount to $49,500, and that a suit in connection with an estate, until lately pending in Philadelphia, had been decided in such a manner that the hospital had come into possession of the funds at issue. A board of directors was elected, including Dr. Samuel C. Busey, of Washington, and Dr. John S. Billings, of the army.

EVERY MAN HAVING HIS OWN JOURNAL.—*The Æsculapiad* is the title of a new quarterly, edited, published, and written entirely by Dr. B. W. Richardson.

THE SMALL-FEE SYSTEM has been introduced into the out-patient department of Guy's Hospital. Patients are charged threepence for advice and medicine, or sixpence for a fortnight's treatment.

ANNUAL MEETING OF THE ILLINOIS STATE BOARD OF HEALTH.—The regular annual meeting was held on January 17 and 18, 1884. The secretary's report showed that during 1883 licenses to practise had been issued to 553 physicians. During the same time 163 applications had been refused, and 11 licenses had been revoked. Fifty-one midwives had been licensed. Three outbreaks of trichiniasis had occurred during the past quarter.

AN ANATOMY BILL FOR ILLINOIS.—The medical colleges of Chicago have been suffering for want of "material," and a bill has been drawn up which aims to provide suitably for this emergency. It is claimed that the county commissioners, who have charge of distributing the unclaimed dead, wanted a bonus from the colleges.

DR. WILLARD PARKER.—We are glad to learn that Dr. Willard Parker is improving slowly.

THE MOSES TAYLOR HOSPITAL, at Scranton, Pa., has received an additional bequest of $100,000 from Mr. and Mrs. Syne, the heirs of the estate. The late Mr. Taylor left $250,000 for the hospital. Thereupon the fertile-minded architects devised a plan for a hospital which will cost $350,000 or more to finish. After it is finished some $15,000 or $20,000 will be wanted to run it.

THE TAX FOR THE SUPPORT OF THE UNITED STATES MARINE HOSPITAL SERVICE.—Mr. Adams, of New York, introduced in the House of Representatives, last Tuesday, a petition signed by three thousand sailors and shipping men, asking for a repeal of the tax now collected from sailors for the support of marine hospitals, and that the institutions be maintained by the Government. A bill repealing the tax was introduced by Mr. Dorsheimer last week and referred to the Committee on American Ship-building and Ship-owning Interests. A delegation of New York shipping merchants have already argued in its support before the committee.

ADDITIONAL CHAIRS IN THE NEW YORK POST-GRADUATE MEDICAL SCHOOL.—Dr. William F. Fluhrer, Surgeon to Bellevue and Mount Sinai Hospitals has been appointed to a Professorship of Clinical Surgery, dividing the chair with Professor J. L. Little; Dr. Bache McEvers Emmet, Assistant Surgeon at the Woman's Hospital has been appointed to an additional Professorship of Gynecology, the chair being occupied jointly by Professors Dawson, Skene, and Emmet.

YELLOW FEVER NOTES.—Sanitary Inspector, D. M. Burgess U. S. Marine Hospital Service, reports: There have been 482 deaths from all causes at Havana during the month of January, 30 of these were from yellow fever, 6 from typhoid fever, 9 from pernicious fever, and 2 from diphtheria. Of those who died from yellow fever,

25 were among the merchant shipping and private individuals in the city, and the remaining 5 from the army and navy.

During the same month in 1883 there were only 14 deaths from yellow fever. The past year has been noted by absence from hurricanes and high winds at Havana.

Dr. Burgess continues disinfecting all ships bound to United State sports, which receive cargo or ballast at suspicious wharfs. At Rio de Janeiro, during the two weeks ending January 5th, there have been 14 deaths from yellow fever and 18 from small-pox.

AN ATTACK UPON THE MANAGEMENT OF QUARANTINE by the Marine Hospital Service was made by the Secretary of the National Board of Health before the House Committee on Public Health, at its last meeting, on which occasion Colonel Waring stated that Surgeon-General Hamilton had been "injudicious, unskilful, and unsuccessful in his quarantine work" and that "in his efforts to control public and official opinion he had been guilty of misrepresentation."

This wholesale charge, without specifying in what particular the Surgeon-General was at fault, is looked upon by the friends of both services as indiscreet and unworthy the representative of the Board, and will hardly be borne out by the facts, as Dr. Hamilton proposes to prove to the Committee at its next meeting. It is reported that the Executive Committee of the Board has attended every meeting of the Committee since its organization this session, while it is known that Surgeon-General Hamilton has not yet appeared before it. He will now have an opportunity to not only disprove the charges made, but show up the peculiar tactics of the Board in its quarantine work.

CHOLERA NOTES.—During the two weeks ending December 15, 1883, there have been 54 deaths from cholera at Calcutta, and the Vice-Consul-General reports that "the general death-rate is moderate; cholera below the average and subsiding, season very healthy." The reports from this section all come in punctured envelopes, showing that disinfection of the mails is still carried on.

THE SIMS MEMORIAL FUND.

To the Medical Profession and Others throughout the World:

The great achievements of Dr. J. Marion Sims call for some more lasting testimonial than obituaries and eulogies. To him medical science is indebted for much brilliant and original work, especially in gynecological surgery. Those who have been benefited by his teachings and new operations, and such as have had the direct advantage of his personal skill are among the first to recognize and acknowledge this debt.

To him is due the honor of giving the first strong impulse to the study of gynecological surgery in America.

It is believed that the medical profession everywhere, the vast number of women who owe their relief from suffering directly to him, and those who realize the benefits he first made possible, will gladly unite thus to honor the man through whose original and inventive genius such blessings have been conferred upon humanity.

At the suggestion of many friends, therefore, the subjoined committee has been organized, and it is proposed that a suitable monument be erected to his memory in the city of New York.

To this end the active co-operation of the medical profession and the many other friends of Dr. Sims throughout the world is respectfully solicited. Contributions of one dollar and upward may be forwarded to the journal which has been constituted the treasury of this fund—THE MEDICAL RECORD, New York.

FORDYCE BARKER, M.D., *Chairman.*
GEORGE F. SHRADY, M.D., *Secretary.*

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W. J. HOWARD, M.D., "
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FRANK E. BECKWITH, M.D., New Haven, Conn.
A. W. KNOX, M.D., Raleigh, N.C.
L. W. OAKLEY, M.D., Elizabeth, N. J.
E. A. WOODWARD, M.D., Brandon, Vt.
ALFRED CROSBY, M.D., Concord, N. H.
E. S. DUNSTER, M.D., Ann Arbor, Mich.
ALEX. J. STONE, St. Paul, Minn.

Other names may be added to this list from time to time.

LIST OF ADDITIONAL SUBCSRIBERS.

Lawson Tait, Birmingham, England	10 Guineas
T. Gaillard Thomas, M.D., New York	$100 00
W. M. Polk, M.D., New York	100 00
Robert Battey, M.D., Rome, Ga	100 00
James B. Hunter, M.D., New York	50 00
Georgia Medical Society, through Dr. J. G. Thomas, Savannah, Ga	20 00
R. B. Maury, M.D., Memphis, Tenn	20 00
A. Jacobi, M.D., New York	20 00
Society of Physicians and Surgeons of Muscatine Co., Iowa	10 00
A. N. Talley, M.D., Columbia, S. C	10 00
G. C. Greenway, M.D., Hot Springs, Ark	5 00
W. M. Findley, M.D., Altoona, Pa	5 00
S. Pollok, M.D., St. Louis, Mo	5 00
S. Teller, M.D., New York	4 00
W. H. Doughty, M.D., Augusta, Ga	2 00
W. M. McPheeters, M.D., St. Louis	1 00
J. P. Buck, M.D., Braddock, Pa	1 00
Robert Stuart, M.D., Zion, Ky	1 00
O. L. Shivers, M.D., Newbern, Ala	1 00

Reports of Societies.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, February 7, 1884.

FORDYCE BARKER, M.D., LL.D., PRESIDENT, IN THE CHAIR.

THE PREVENTION AND TREATMENT OF PUERPERAL FEVER.

DR. T. GAILLARD THOMAS read a paper on the above subject on December 6, 1883, and the discussion was made the special order for the first stated meeting in February, to be opened by a paper by the President (see p. 170).

DR. BARKER, when the reading of the paper was concluded, said: The subject is now open for general discussion. So many of the Fellows of the Academy have signified their willingness to speak, and there are so many whom all will be anxious to hear, that I felt it to be a duty to limit my remarks on the paper just read to a very restricted time and to content myself with the enunciation of such general principles as I believe to be important truths without entering much into details. But there is one point which I hope will receive attention from the speakers who are to follow. Very early in my practice I began to direct the use of vaginal injections for the first week after labor, the antiseptic being Labarraque's solution. When I went on duty at Bellevue Hospital, now nearly thirty years since, this was made the invariable rule in the lying-in wards. Subsequently carbolic acid was substituted, and I give a formula for its proportions in the work on "Puerperal Diseases." I have habitually directed its use in all my obstetric cases until the last two or three years past.

At the time of the meeting of the International Medical Congress in London, in 1881, I happened to sit at a dinner next to Dr. Thomas Keith, of Edinburgh, and had a very interesting conversation with him as to the use of antiseptics in ovariotomy. What he said was very suggestive and led to a good deal of subsequent reflection on my part as to the use of antiseptics in obstetrics. I recalled to mind the fact that often in my practice I had seen disturbances and interruptions of puerperal convalescence the first week after labor, and it occurred to me whether this might be due to the carbolic acid; and the following autumn I decreased the proportion of the carbolic acid one-half, and thought that my patients did better.

On further thinking of the subject, I said to myself: The carbolic acid, even in the larger proportions which I have formerly used, was not strong enough to destroy the micro-organisms; and is it not possible that nature has wisely so arranged as to furnish the best fluid for constantly bathing the bruised and lacerated tissues in the much-maligned lochia? Are not absolute rest and freedom from disturbance of these tissues much more favorable to their restoration than any washes that can be used? Since that time I have considerably surprised nurses by directing that no injections should be used unless specially ordered.

Dr. A. A. Smith, who frequently visits my patients during the first puerperal week, when I have other engagements, informs me that this direction was given more than two years ago. Since September, 1882, it is only in a small proportion of my obstetrical cases that I have seen any reason for ordering vaginal injections. It is hardly necessary to say that absolute cleanliness is insisted upon, and that not a spot of blood should ever be found on either the person, or her clothing, or her bedding.

We both can declare that since this time we have not had a single case, including instrumental cases, which during the puerperal period has given us any anxiety, or required more than one ordinary attendance of one daily visit for nine days. This may be only a happy coincidence, but it seems to me significant. I think most present will be glad to hear the views of others on this new departure.

DR. W. M. CHAMBERLAIN said: I do not propose to enter into the general discussion of this subject, or of either paper which we have heard, but would like to notice some remarks made at the first meeting about the glass tube mentioned by Dr. Thomas and devised by me some years since for washing out the puerperal and septic uterus.

Dr. Thomas stated that he had found occasion to make some modifications in the instrument, namely, to bring the openings nearer together at the uterine end and to make an opening at the extreme end. The first of these I had long since done, and about the propriety of the second I still have some doubts.

Another gentleman criticised the tube as too large, and this suggests a point of much diagnostic value, as it seems to me, in determining in what cases intra-uterine injections should be employed and when they should be omitted, or if employed, suspended. In every autopsy of a woman dying from puerperal septicæmia which I have seen the uterus has been found large, soft, and flaccid. And in all the cases during life which I have seen since I became critical on this point the same condition has existed. There are different grades of septicæmia, such as sometimes follows after slight breaks in the mucous membranes of the genital passages, a little tear of the cervix, vagina, or perineum, and is marked by a gradual rise of temperature day by day, until, a week or more after delivery, the patient may come into a critical condition. This is the analogue of surgical fever, and is to be distinguished from the explosive form, which is generally seen within forty-eight or seventy-two hours after delivery, ushered in by a sharp chill, lochial fetor, rapid rise of temperature, restlessness, anxiety, and prostration. When this exists, so far as I know, it always suspends the process of involution, the uterus becomes relaxed, the discharges accumulate in it, and are partially retained, and the uterus becomes a hot-bed where the spawn of microbes will fructify in profusion or the virus of putridity may ferment unrestrained. These are the cases, I believe, which require antiseptic uterine injections, and in these the os is so patulous and so soft that a large tube will pass readily, by its firmness will give a leverage which will lift the soft anterior lip, and leave beneath it a space for free exit of the injected fluid. In such softened tissue a large bearing surface is safer, even as a large sound is safer than a small one in a soft urethra. While if the uterus be itself thus open there is reason to fear that its tubes and sinuses may also be patulous, and therefore liable to be entered or injected by a small tube, particularly if it be open at the end. The remarkable studies of Dr. Garrigues have shown us that the ordinary lochial discharge in a normal delivery is not noxious if access of a ferment or a contagium from without be carefully excluded. I hope we may hear from him again on this point, and will leave him to give his account, which he will do much better than I. To the objection that in my tube, as originally made, the antiseptic fluid is evacuated in the vagina before it reaches the womb, I can only say that I had the best results with the original tube, and think it not probable that so large a calibre would be evacuated so rapidly by an orifice without the womb when that orifice was so small.

I repeat it, that I find no occasion for irrigating an uterus in which the process of involution is going on at or about the normal rate, for such an uterus does not contain the septic material to be washed away. Some, at least, of the cases in which the injections have seemed to do harm are to be ascribed to the failure to make this distinction.

DR. W. T. LUSK thought that the Society was to be congratulated upon two such papers as that of Decem-

ber 6th and that of the evening, as, in many respects, in spite of the seeming antagonism between them, they really supplemented each other.

While it was his desire to confine his remarks to the local treatment of puerperal fever, yet he would venture to state his faith concerning the etiology of the disease, as in practice every man is governed by his theoretical views. He would say that in his opinion surgical fever and puerperal fever are not only analogous, but are essentially one and the same process.

To maintain this definition it was necessary to bear certain facts in mind. Much confusion had been occasioned by the failure to classify as distinct from puerperal fever the action of certain extraneous poisons, such as those of scarlatina, of typhoid and malaria, which ingrafted upon the puerperal woman, lose many of their characteristic features, and in their modified form present many features which are usually attributed to puerperal fever.

Again, the differences in symptoms between surgical and puerperal fever are in a large measure due to differences in the anatomical conditions. The entrance of poisons into the system through a clean cut stump necessarily would give rise to symptoms of a different nature from those produced by the same poison when introduced through a puerperal wound, where the serous infiltration of the tissues, the wide intercellular spaces, the dilated lymphatics and veins, the ordinary machinery for the removal of the retrograde products of the pelvic organs, all are active in conveying deleterious as well as the normal waste materials into the organism. Again, it should not be forgotten that in puerperal women a special danger exists in the proximity of the peritoneum to the seat of infection. But with differences of symptoms not explicable upon anatomical grounds, surgical and puerperal fever are linked together by the presence in both of the round bacteria. Both are of septic origin. Many arguments against the septic nature of puerperal fever are based upon a confusion of terms and the failure to recognize the modern distinction between putrid intoxication and septicæmia proper.

A decomposing fluid containing rod-like bacteria only is characterized by the foulness of the odors it emits. When injected into the veins it produces symptoms of profound disturbances in the nervous and chylopoietic systems, the animal experimented upon becomes feverish, depressed, a stinking diarrhœa develops, but, unless the first injection be large or the injections frequently repeated, the animal finally recovers. This form is not infectious, because the rod-like bacteria under no circumstances thrive and multiply in the human system, and this explains the fact that physicians have been known to go from the dissecting-room to the lying-in-room with their hands still stinking, and yet have not communicated puerperal fever. But the round bacteria, which thrive in putrefying fluids, but to which putrefaction is not absolutely essential, unlike the rod-like variety, under favorable conditions, which we term the predisposition of the patient, may penetrate the tissues, enter the lymphatics, and be distributed to the parenchymatous organs and to the serous cavities, and far away from the original site of the disease may form sturdy colonies which excite inflammation destructive in character or interfering with the performance of function. Or again, the round bacteria may be disseminated through the system by portions of thrombi dislodged from inflamed veins. In many cases, it is true, no such general dissemination of these fungi need ensue. If the septic micrococci are of feeble activity or meet with resistance from the invaded tissues, it was possible for them to progress only a short distance from the point of entry, and there to give up the combat, giving rise to circumscribed inflammations, such as cellulitis and local peritonitis.

With regard to prophylaxis, he thought too great a burden could be thrown upon the practitioner by insisting upon non-essential details. He should hardly expect great results from washing furniture, walls, and floors with antiseptic solutions. At least, in lying-in hospitals, where he had seen many epidemics of puerperal fever, there was a time when everything was washed and scrubbed with great vigor. No pictures adorned the walls, no carpets covered the floors, and carbolic acid was used without stint, but he had never observed that these precautions ever exerted the slightest influence upon the prevention or restraint of puerperal fever. The fumes of sulphurous acid had since been substituted with the best results, and he would strenuously recommend the modes of disinfection employed by the Health Board in all cases where there had previously been scarlatina, diphtheria, typhoid, or erysipelas in the house. In this connection he would state that a woman should never, if possible, be confined in the chamber adjoining the bath-room, as he believed that puerperal women were extremely sensitive to sewer-gas poisons.

In normal confinements the uterus contracted during the expulsion of the head and body of the child in such a way that no air found entrance into its cavity. There is no evidence that decomposition ever occurs normally in the interior cavity. In the vagina the conditions, on the contrary, are all favorable to decomposition. There the lochia stagnate, and there are found heat, air, and moisture, which favor putrefaction. Putrefaction of the uterine contents is not a primary, but a secondary condition, the changes beginning in the vagina creeping upward after a distinct interval into the uterine cavity. This he considered an important point in practice, as in cases where labor had been normal, and there had been no needless interference with its progress, if the vagina was thoroughly cleansed it was rarely necessary to carry the injection into the uterine cavity.

In cases of difficult labor, on the contrary, where the hands or instruments had been introduced into the uterus, primary intra-uterine decomposition was rendered possible, and was then especially favored by lax uterine walls, and the presence of bits of retained placenta or deciduæ. In such cases the intra-uterine douche is often the direct means of saving patients' lives. It would, however, have been better if the uterus had been thoroughly disinfected, not after the symptoms of septic poisoning have developed, but immediately after labor. The douche was then harmless, it stimulated the uterus to contract, and was a powerful means of preventing subsequent dangers. For his own part he preferred the fountain to the Davidson's syringe, but the choice was apt to be determined by circumstances. In not every case of uterine infection were favorable results to be obtained from the douche. In cases where the round bacteria had been inoculated into a wound the disease rapidly progressed into the tissues beyond the original lesion, so that they were often advancing, a victorious army, far beyond the reach of the stream which was thrown into the uterus. Washing the arm the day after vaccination does not prevent the development of vaccinia. Washing the uterus after the pelvic tissues are invaded does not prevent the development of puerperal septicæmia. His advice, then, would be not to continue the uterine douche in cases where the results of the first injection furnished the evidence of its impotence.

The results of antisepsis, as understood by the speaker, had been most surprising in the lying-in asylums of Europe. In Vienna, where in his student days the mortality had been not far from five per cent., the reports now show one death from septicæmia in two hundred. In Prague, during the last year, upon Professor Strong's division of eleven hundred cases, there was not one death from puerperal fever. But in these hospitals, and everywhere, the indiscriminate use of uterine injections has invariably added to the mortality. With all the blessings from their use, with the indubitable fact that they have been the means of saving many lives, unless the indications for their employment are carefully

restricted, it is to be borne in mind, that they are likewise capable of adding to the risks of the puerperal state, and of swelling the death-roll from puerperal causes.

Dr. H. T. Hanks: Mr. President and gentlemen, having listened to the very valuable paper of Dr. Thomas on the evening on which it was read by the author, and having been invited by him and by our honored President to express my views upon this important subject, I have felt that it was due you all that what I have to say, where so many will be glad to speak, should be in the fewest possible words that will fully convey my ideas. I have said that this paper is a valuable one, and this subject an important one. I do not say it unadvisedly. I believe this paper will have a most vital and lasting influence, and that in America, among the more intelligent physicians, many of these suggestions made and the course of treatment marked out by him are to become the accepted rules of the future on the treatment of this class of cases.

The profession of to-day, especially in this city, are ready to accept any plan which promises better results than those attained in the past. It is not enough for Dr. A. or Dr. B. to say that he has attended twenty-five hundred cases of labor, and lost but two patients from this fever among all this large number. If Dr. A. or Dr. B. have had, or remember to have had, but *one* case in every thousand, Dr. C., just across the street, who is equally educated and just as skilful, confesses to have lost one in every 120 of all his puerperal women. Statistics from *memory alone are uncertain.* The disease is not found in the city so much more frequently than in the country, where you compare the numbers. I remember distinctly that in my five years' experience in country practice in Massachusetts one of my patients, two days after an easy, normal labor, drank a pint of *cold* milk. An hour afterward she was seized with violent colic pains and soon vomited. An hour later she had a severe chill, followed by every symptom of septicæmia and rapid general peritonitis, and she died on the fifth day. Dr. Godding, from a neighboring town, a venerable and able physician, who was called in consultation, concurred with me in pronouncing this a typical case of puerperal fever. We explained it then in this manner: The cold milk drank by the patient was not digested, and caused vomiting; straining at vomiting and the relaxation following allowed some extraneous poisonous matter to enter the open vessels of the womb; the chill and the fever followed in regular order, and death resulted. One other case, two years later, of severe puerperal fever came under my care during the five years of my country practice. This second one followed a difficult instrumental labor, where there was considerable laceration of the perineum and quite likely of the cervix, although at that time I had not been led to look after this lesion or expect a slow convalescence because of it. This was a case of puerperal septicæmia, resulting in pelvic cellulitis and general peritonitis. She recovered, however. This made two cases and one death out of seventy-five confinements. I believe, from the fact of my being called frequently in the country at the present time to see cases of puerperal fever in consultation, that when numbers are actually considered and exact statistics are obtained, there will be found a much larger per cent. of deaths in country towns from this disease than the profession have been led to suppose.

But in this city I have been interested to get at the facts, and have obtained from the President of the Board of Health the statistics of *deaths*—not cases treated—from puerperal causes during the last four years, and I find that there were 240 deaths in 1880, 259 in 1881, 246 in 1882, 262 in 1883. In 1882 the number was slightly less than in 1881, otherwise the increase from year to year could be explained by the increase of population. The startling fact is here manifest, that for the last four years in New York City, out of 120,418 puerperal women, there have been 1,005 deaths from puerperal fever, or one death in every 120 women who have borne children. One thousand and five deaths from among a class of patients who can be but poorly spared, who are the most important class, with one exception perhaps, of all that we are called upon to treat, is an alarming fact. I do not, therefore, speak at random when I state the profession at the present time are ready for any judicious change which promises better results for the future. And I thank Professor Thomas for able contributions upon a subject which has interested us all of late, and which is of vastly more importance to the profession and to the world to-day than the subject of "How to Operate for Cystocele," or "How to Fasten the Pedicle after Ovariotomy," or "How I Stand and Believe on the Code Question."

Many of us who are frequently called to see these cases of puerperal fever, have been often led to ask ourselves, "How can we prevent and what can be done to cure these fearful cases?" I believe that I am sustained by a large number of the profession who are present this evening, if I say that "out of this one thousand and five deaths from puerperal cause in this city during the last four years many of these mothers would not have contracted this disease, and when contracted, might have been cured, had these rules laid down by Professor Thomas been judiciously carried out. My object in speaking will have been accomplished if I can help to emphasize the importance of nearly all of these rules. I will speak first of the name. I believe there is no better one than the one adopted or approved of in his paper, "puerperal septicæmia," and it may surprise you to know that to-day it is becoming more and more adopted by the profession. In 1880 there were reported in this city but 34 deaths from "puerperal septicæmia," while in 1883 there were *sixty-four*. In 1880 there were reported, however, 49 cases of deaths from "puerperal *fever*," and in 1883 there were eight less, although a larger number of *puerperal women died.* To show the result of the teachings upon this subject in the text-books of Playfair, Leishman, and our own Lusk, I will state that in 1883, in this city, there were but 41 deaths reported from "puerperal fever," while there were 143 from "puerperal metritis and metroperitonitis," 64 from "puerperal septicæmia," 5 from "puerperal pyæmia," 1 from "puerperal pelvic cellulitis," 2 from "puerperal cellulitis," and 1. from "puerperal phlebitis."

Thus we see that these several names are used to-day to denote that puerperal disease was manifested in these various ways. In the light of present pathological teachings and intelligent clinical knowledge, we may safely say that nearly all these several diseases have been caused, either directly or indirectly, by one and the same poison, taken into the circulation and resulting in these several organic changes.

For myself, I will say that during the last fifteen years in this city, where I have averaged sixty-five confinements in a year, besides a large number in consultation, I have had two and sometimes three cases of puerperal fever, not always three deaths, from so-called puerperal fever. I have had no case that I could not satisfactorily explain as caused by absorption of the poison at a certain point of the genital tract.

But to come down to the practical points of the paper—the prophylactic measures to be adopted.

Rule 1.—Preparing the room by proper antiseptics and disinfectants. Always try and carry it out, always be certain you do enough, and that without alarming your patient.

Rule 2.—The nurse and physician thoroughly to disinfect themselves and their clothing. This rule cannot be carried out too minutely.

Rule 3.—Bathing of the vulva, etc., of the patient with antiseptic fluids before the delivery of the head. Useful, but not so important as the first and second rules.

Rule 4.—Preparing nurses' and physician's hands, etc., before labor sets in. Absolutely necessary.

Rule 5.—Removing all clots of blood and tufts of placenta, and the giving of ergot in *moderate* doses for a week. Certainly important. The use of ergot in small doses can do no harm, but in full doses (one-half to one drachm doses) will cause an unnecessary amount of distress and uterine colic. Always give it where the uterus does not remain well contracted.

Rule 6.—The examination of the vulva should be made at once in all cases to see if the perineum is lacerated. If only a slight fissure exists, thorough cleansing with antiseptic fluid, or local application of persulphate of iron to be covered with vaseline is required. If the laceration is extensive, but does not involve the sphincter ani, one deep suture, or two at most, should be introduced at once, the ends lightly twisted, not tightly, as we must expect swelling of the parts—then bent down over the anus or fastened with perforated shot. In no case should the long loops be allowed to remain directly protruding, to be constantly jarred by the antiseptic napkin, and a source of irritation and sometimes of great suffering. But, however, where the patient is greatly exhausted, the nurse, husband, and friends somewhat demoralized, the *primary* operation should be postponed. For we all know that even the *secondary* operation is often the cause of great fever, distress, and, occasionally, danger. Much more so *may* be the *primary one*. If laceration extends through the sphincter ani and into the rectum, by all means delay the operation until convalescence from the puerperal state has taken place, and you have your faithful assistants at command.

Rule 7.—Frequent antiseptic vaginal injections are necessary. Perhaps not in all cases; but if sickness follows when you have not used them, you will not cease to regret it. The use of the iodoform suppository. Placed near os externum may be useful in some cases. I should not insist upon this rule, since the distress and the labor attending their use must be considerable. The nurse cannot easily insert them, and the speculum ought never to be introduced for such purposes, excepting in extreme cases.

Rule 8.—Frequency of urinary vaginal injection. A good rule.

Rule 9.—Drawing the urine frequently with a clean catheter. An important rule.

Rule 10.—See personally that the nurse can do, and does do, her work well. Excellent and absolutely essential.

In the *treatment* of puerperal septicæmia I can only concur with every suggestion Dr. Thomas has made, and would add only one remedy to the list of therapeutic agents which he has recommended, and this is aromatic spirits of ammonia, given in one-half teaspoonful dose, diluted with brandy-and-water and generally given every two hours. Dr. Thomas' suggestion about the hypodermic needle is exceedingly timely.

In using the antiseptic vaginal injections I should suggest the use of a large bed-pan, like the one here shown, and thus avoid lifting the patient to the edge of the bed, for obvious reasons a dangerous procedure. The intra-uterine injection should be used only when it is strongly probable that there is loose débris in the uterine cavity. In that case the cervical canal will be partially open, and the small-sized Chamberlain glass tube should be passed in with the greatest gentleness, and the antiseptic fluid cautiously injected. I would again repeat that only when it is almost *morally certain* that the cause of the disturbance is within the uterine cavity should the intra-uterine injection be used. I should not advise the introduction of the Sims or Cusco speculum into the vagina, nor dilatation of the cervical canal, *unless* I were certain of finding large tufts of placenta in the cavity. The use of the rubber coil with cold water has served patients well after ovariotomy. I certainly should try it in puerperal cases whenever the occasion seems to demand. But this is a dangerous assistant if not watched. The diet of milk and animal broths is excellent.

The selection of a competent nurse and assistants necessary, if we are to carry out this plan, is an important matter. Some of the suggestions may seem unnecessary, a few, I believe, can be safely dispensed with. If the young physician who wishes to succeed in life should find it impossible to safely introduce the iodoform suppository every six hours, and he has no rubber coil, or that his patient has lost two drops of red blood from the vagina after the expulsion of the placenta, as one has lately claimed in this hall to be an abnormal and pathological condition, instead "of going out and hanging himself," or even following Horace Greeley's advice and going West, he should stop and reflect upon the fact that women *have* recovered from puerperal fever without the aid of either iodoform suppository or cold coil; and also that though his first patient may stain one or two napkins daily for a week with red blood, still she too may recover, and they both may in time laugh at the author of such a statement.

In conclusion I wish to give you the names of the four assistants who have always, when called upon, effectually aided me in the lying-in chamber. I have, of late, been accustomed to call upon my new patient and the nurse some weeks previous to the expected confinement, and telling them both of my desire to have present during delivery, and all through the puerperal state, these four assistants. If they do not consent to my request I respectfully withdraw from the case. If they *consent*, I go on and am satisfied with my labors, and expect perfect results. These four assistants are all important, and the first, second, and third, are of quite as much consequence as the fourth.

And as I look back at my record of births I find that the want of the first assistant has been the cause of a few deaths; the want of the second assistant the cause of no less than four deaths; the want of the third assistant the almost certain cause of three deaths, and weeks of sufferings for others, while the want of the fourth assistant has been equally disastrous. I give their names: "pure air," "absolute quiet," "judicious diet," "proper antiseptics."

Dr. P. F. Mundé had listened with great pleasure and interest to the paper by Dr. Thomas, and also to the discussion this evening, but had felt at a loss to know what to say in case he should be called upon to speak. Since he first began to practise obstetrics, some eighteen years ago, he had seen a number of cases of puerperal fever in hospital and private practice. More recently it had become his custom to treat puerperal fever locally, precisely as though the case were one of septic wound—just as a wound which gave rise to septic infection would be treated in any other part of the body, and he must confess that he had arrived at the conviction that puerperal fever was, properly speaking, puerperal septicæmia. Although he had arrived at this conclusion, at the same time he wished to qualify the statement. Certainly, whenever he was called to a case in which he found an offensive discharge from the uterine cavity, attended by rise of temperature, preceded or not by a chill, he felt it his duty to wash out the cavity of the uterus. And if he failed to do this he felt that he had failed in his duty to himself and to his patient. Again, however, he had seen cases in which, in the entire absence of evidence of infection of the uterus or of the perineum, he could not help feeling that the condition was something different from what we found in cases of septic infection. He could not help feeling that there were cases in which we could not exactly trace the source of the trouble to septic infection. He was obliged to subscribe, in short, to the views of the honored president, that there were some forms of puerperal fever which we could not call puerperal septicæmia. Regarding the etiology of puerperal fever, he had nothing to say, and yet the subject had of late been so much talked up that it seemed we would have to subscribe either to the view that puerperal fever was puerperal septicæmia, or else that there was a pecu-

liar form of puerperal fever, puerperal fever proper. At any rate, whenever he had a case of fever during the puerperal state, with offensive lochia, he took the risk of washing out the uterus, and if it were not necessary, he felt that if properly done it probably would do no harm. Concerning vaginal injections as prophylactic treatment, much had been said for and against it. He himself had employed them, although he must admit that the objections which had been offered to the practice might have some foundation. Probably one of the chief reasons why he had permitted them was that the nurse and the patient commonly thought all had not been done that should be done if they were neglected. He objected to the use of the Davidson syringe for making the uterine injections—cases had been reported in which the fluid or air had been forced by it into the uterine sinuses, resulting in death. Certain other dangers from intra-uterine injections he thought should be more forcibly emphasized than Dr. Thomas had done in his paper. The mere absence of discharge from the uterus did not contra-indicate the injections; indeed, it might be a special reason for employing them. This was illustrated by a case in which the discharge had ceased simply because the uterus had become anteverted and closed the outlet. He was doubtful whether it were an advantage to have a terminal opening in the Chamberlain tube. He agreed with Dr. Lusk, that when the temperature remained high in spite of the injections, that the victorious army had probably come on into the general system, and our washings simply brought away the rear-guard, and were liable to do more harm than good if continued.

Dr. T. Gaillard Thomas was then requested to close the discussion. He rose and said: Mr. President and gentlemen, when quite a young lad I was present at a murder trial, which made a deep impression on my mind. When the case had been presented the attorney for the commonwealth, who was a florid and rather bombastic orator, got up and made a speech of two hours. At its close all were very anxious to hear the counsel for the prisoner, who had a reputation for great eloquence. Judge of the surprise of the audience when he arose and quietly said: "May it please your honor, the case is closed. I rest it here. The gentleman on the other side has made a speech which tells so decidedly in favor of my client that I rely upon it for his acquittal." The prisoner was acquitted. I feel very much in this way with reference to the paper of Dr. Barker, to which I have just listened with feelings which I know you, who are his well-wishers, fully share with me—feelings of surprise, regret, and sorrow. Discussions such as these cannot fail, however, in the end to do good, for I am a great believer in the old Latin adage, *Ex collisione scintilla*; and although in view of the very grievous errors which, according to my distinguished colleague, I have brought before the profession and suggested for its adoption, I may be preferring silver to gold in deciding in favor of speech instead of silence, I feel called upon to say a few words in simple self-defence, that first law of nature.

Our honored president has been very guarded in opening his attack upon my paper, and has seemed to feel concern lest the author should take offence at his sallies. Let me assure him and you that it would take a great deal more than such a discussion as this to weaken the ties of a friendship which a quarter of a century has cemented between us, or to cause me to take exception to the criticism of one whom I have often in times past encountered in the lists of debate, and have ever found just, magnanimous, and courteous.

But alas, gentlemen, my adversary has to-night incautiously, and I think unwisely, ventured to use against me that dangerous weapon, a two-edge sword, ridicule. Richmercilessly has he given me one edge; let him beware of the other! As I saw him draw and flourish this weapon a few minutes ago I experienced mingled feelings of pleasure and of pain; pleasure because I felt that I should probably escape absolute annihilation at the hands of one whose cause was so poor as to make him resort to it; pain that I should see my old friend, our president, in such a strait. In a scientific discussion, more especially in a debate, which directly and immediately concerns the saving of human life, which at this very moment is being deplorably sacrificed among us, ridicule, elsewhere a powerful weapon, is the poorest and most pitiful of arguments. It is the resort of the weak, not of the strong; and as my adversary used it just now I said to myself, he feels himself to be very weak, he totters upon his pedestal; 'tis pity that he should feel so, for otherwise that master pen, which so often in times past has enchanted us, would not to-night emit what carries pain to my heart and to the heart of every true friend of his in this assembly, evidences of irascibility and of irritability which are so little characteristic of his real nature; otherwise I should not be able to recognize, as all others must do, the utter want of logic, the complete absence of argument, the total neglect of appeal to facts, and the very conspicuous presence of signs of wounded *amour propre*, which, like an unwholesome stream, meanders through his essay.

I shall not detain you long. I have little to say, for Dr. Barker's attack calls for no rebuttal and demands no argument on my part. I said all that I had to say on December 6th, when the original fire-brand was thrown down, and unfortunately picked up by the wrong end by my excellent friend. There are, however, one or two points upon which I must touch, to avoid misrepresentation.

Dr. Barker declares the pathology which I have advocated to be unsustained by even the most recent researches of those who are our recognized guides; he appears to object to the fact that I have not stuck closely to the dicta of our text-books, and hugged to my soul the tenets of a past age, as he has done. This is hardly fair. I strove to follow the advice of Dr. Billings, when he says, "Have something to say, say it, stop when you have said it." Had I had no opinions of my own to offer you, had a practice in a large metropolis and in great hospitals taught me nothing during a period of thirty years, I should not have appeared before you. Let my adversary inform himself upon the recent views of pathologists upon this subject, and he will find that it is his views which are effete, not mine which are jejune.

As far as I can gather anything certain from his discursive paper, the pivotal idea of Dr. Barker's attack seems based upon the belief that I regard the lochial discharge as a poisonous fluid which, by absorption by abrasions in the genital tract, gives rise to puerperal septicæmia. I need not tell you that no such absurd idea ever obtained foothold in my brain or enunciation from my tongue. If his idea be this, he has been guilty of very superficial reading of my paper, and should not so easily have concluded that I was affected by idiocy. Look at my essay, which is now in print, and you will see what you already appreciate must be the fact, that I stated merely that the lochial discharge was a material ready to take on those alterations which are effected by micro-organisms of bad character, which changing its nature render it poisonous to the abraded tissues. I believe that you will find that the pathology which I have there offered to you is abreast with the views of the advanced pathologists of Germany, France, and Great Britain. As to the pathology of my adversary, Dr. John Thorburn, of Manchester, England, very justly expresses concerning it, I think, the accepted view of the profession when, in a foot-note to an article upon "Metria," which appears in the *British Medical Journal* for August 11, 1883, he says: "It would be inexcusable not to make some reference to the very valuable papers of Dr. Napier, in the *Obstetrical Journal* for 1880, on "Puerperal Fever." He, along with Fordyce Barker, defends the old position of a specific puerperal fever *sui generis*. The time limit imposed by our regulations allows no opportunity of consulting step by step such arguments as he adduces. I

can only say that his invaluable collection of facts produces in me an opinion diametrically opposed to his own."

My critic upbraids me with want of thoroughness and sketchiness of detail with reference to my description of symptoms. I will merely say in answer to this that I intentionally assumed this style, as I was not preparing a lecture for a class of medical students, and my paper was distinctly announced to be upon "The Prevention and Treatment of Puerperal Septicæmia," and upon nothing else. I can not but thank him for his kindness in comparing my style in this sketchy description to that of Byron and Humboldt (I believe that these are the authors with whom he compared it); but alas, as I recall the passage to which he alluded, I am pained to confess that the similarity of style does not strike me as forcibly as it does my partial friend.

Here let me draw the veil of pitying silence over the unfortunate allusion to the squib of Stepney and the relics of the Hotel de Cluny. We stand to-night upon ground consecrated to science by the dignified fathers of the New York Academy of Medicine who have now passed away; we stand face to face with the terrible mortality which marks puerperal fever at this very moment.

And now, gentlemen, a few words as to the prevention and treatment of puerperal fever, which is the only legitimate subject before us for discussion this evening; the only theme which should not, at the very commencement of these exercises, have been rigidly ruled out as irrelevant by our president.

Dr. Thomas then spoke of the methods which he had suggested for avoiding the occurrence of puerperal disease, and to which some seemed to have taken exception as being impracticable. To carry out the first requirement, regarding the preparation of the lying-in room, it was only the work of two or three hours for a laboring woman. But in making rules, it was necessary always to give a high, and not a low, standard. He would admit that a woman might be confined in a dirty room and yet have a perfectly natural confinement, but he thought it did good to get the mind of the obstetrician into the proper channel, which was that of cleanliness, three times repeated.

Coming to the second rule, he thought this also quite practicable, and it was only this morning that he had bathed his body and washed his hair and beard with a solution of boracic acid, according to the rule laid down, having attended a case of puerperal septicæmia yesterday. After going over the other rules, to which it would seem there could not possibly be any valid objection offered. Dr. Thomas spoke of the administration of ergot, which it had been his custom to do for some years, and with apparent benefit; and then of vaginal injections, regarding the propriety of which he must confess, in view of the evidence which had been brought out in the discussion, he felt a little weak. As Dr. Mundé had said, it was his usual habit to make vaginal injections, but he was willing to give it up at any time he became convinced that it was faulty. Only recently he omitted it in a case of deformed pelvis, in which labor was brought on at the eighth month, and the woman did perfectly well. In laying down the rules in the paper which he had read he simply gave what was his practice, and what seemed to him to be desirable, but he was willing to discard any part of them as soon as they were shown to be rash or injurious. With regard to intra-uterine injections, he was, as stated in his paper, and in as plain and good English as he could command, utterly opposed to them except where there was good and sufficient cause, and he had stated as strongly as he could do the dangers which might attend the use of such injections. He was not aware that Dr. Barker had made use of them and described how they should be used in the book referred to, else he certainly would have given him due credit.

Dr. Thomas then quoted the statistics given by the speakers of the evening, and by others, going to show that puerperal fever was not of so infrequent occurrence as one might be led to suppose, and this was especially the case where antiseptic precautions were not observed. Since December 6th he, himself, had seen as many as five cases of undoubted puerperal fever, and this was not above the usual number for an equal period of time. He then gave an instance going to show that statements made from memory by physicians, to the effect that out of a large practice for a great many years they had not had a single case of puerperal fever, were very unreliable. They meant to tell the truth, but their memory failed them.

Dr. Thomas closed his remarks by saying that he was not dogmatically inclined to the rules which he had laid down; not at all. He was willing to alter them as soon as it was shown that they were objectionable.

The Academy then adjourned.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, January 23, 1884.

GEORGE F. SHRADY, M.D., PRESIDENT, IN THE CHAIR.

SPECIMENS for candidates were presented by Drs. Birdsall, Amidon, and Peabody.

DR. GEORGE R. ELLIOTT presented a specimen of

NEURO-FIBROMA COMPLICATING SPINA BIFIDA.

It was accompanied by the following history: The child was first seen at the clinic of Dr. M. Josiah Roberts, at the Post-Graduate Medical School, April 10, 1883, about two months after birth, and presented at that time a tumor in the dorso-lumbar region. The tumor was oval in shape and measured three inches in its longer diameter, which corresponded with that of the spine, and two inches in its transverse diameter. It was distinctly fluctuating to the touch and covered by a membrane which in places was translucent. The base of the tumor was broad, there being nothing approaching a pedicle. Deep digital pressure showed the post-vertebral arches to be absent at the site of the swelling. There was no paralysis of the lower extremities, but double talipes varus existed. The anterior and posterior fontanelles were open.

There was also double internal strabismus of both eyes, most marked in the left member. I examined the eyes with the ophthalmoscope and found evidence of a chronic circumscribed retinitis in the vicinity of the left macula lutea.

There were no marked cerebral symptoms present other than ocular, above cited. The child, however, showed lack of animation and was especially unobserving. By means of the sphygmoscope it was made apparent that communication existed between the cerebral ventricles and the sac of the spina bifida. The head gradually increased in size, the fontanelles becoming more widely dilated. Emaciation began from this date. At intervals of three or four weeks fluid was withdrawn from the sac, and pressure applied over the tumor. Under this treatment the swelling did not markedly increase in size. Emaciation steadily became more noticeable.

Early in October last, about ʒj. of Morton's fluid was injected into the cavity of the sac after the withdrawal of some of its fluid contents. The child at once passed into a comatose condition and died three days afterward.

The parents of the child were both remarkably healthy, and the mother, a primipara, nineteen years of age, gave no history of any violence or maternal impression during utero-gestation which might have been factors in the production of the deficiencies above mentioned.

Autopsy.—Made twenty-four hours after death; body was extremely emaciated. The covering of the sac varied much in thickness, being thin and translucent in places, and in other parts considerably thickened, apparently the result of inflammatory exudation. The

thickening was especially marked in the entire circumferential part of the tumor, where there was a thick band of tissue grading into the sac covering the superficies of the tumor on the one hand, and into the healthy skin on the other.

The sac contained thirty cubic centimetres of turbid fluid, which, upon microscopical examination, was found to contain red and white blood-cells and columnar epithelia. Chemical examination gave in addition the normal ingredients of cerebro-spinal fluid. The inner surface of the sac-wall appeared to the unaided eye like a serous surface with nerve-fibres coursing over it. The base of the tumor rested upon the bodies and pedicles of the eleven and twelve dorsal and those of all the lumbar vertebræ.

Lying upon the base of the tumor and projecting into its cavity was found an oval-shaped growth, the contour of which was identical with that of the tumor in question, but much smaller. At the cephalic end of the sac was an aggregation of nerve-fibres which immediately broke up, some of the fibres coursing around the growth at the base of the sac, traversing the sac wall throughout its entire extent, and perforating it at its caudal end at various points. Other fibres passed directly into the growth, in the substance of which they were lost.

The growth above mentioned was a neuro-fibroma with the fibrous element largely predominating. (Microscopic slides showing it were submitted to the Society.)

Careful dissection from above showed that the sac was made up largely of the original membranes of the cord, it being possible to separate the pia mater from the dura for a considerable distance at the base and sides. At the upper part of the tumor cavity the central canal was distinctly visible and the microscopic appearance at the upper part of the ninth dorsal vertebra, which was perfect in its formation, was that of a tube within a tube, with nerve-tissue intervening, the external tube being formed by the membranes of the cord, the inner, the dilated central canal. Upon examination of the vertebræ, the spinous processes and laminæ of the eleventh and twelfth dorsal and those of all the lumbar and sacral were absent. Permission to examine the cord above or to make a more complete autopsy could not be obtained.

Dr. Elliott illustrated by means of diagrams his views concerning the successive steps in the lack of development which gave rise to the condition described.

Dr. Wyeth said the French school taught that the mesoblast was concerned alone in the formation of the skeletal tissues, and he thought that it was proper, therefore, to confine its function to that part.

Dr. Elliott thought the case should be regarded as one of lack of development in nervous tissue as well, which is formed from the upper layer, or the epiblast.

Dr. Charles H. Brown presented two sets of

CYSTIC OVARIES REMOVED BY LAPAROTOMY—HYDRO-SALPINX.

The first was especially interesting on account of the mental condition of the patient. It was a case of acute melancholia. Three months ago the patient, about thirty-two years of age, gave birth to a child, and six weeks afterward began to be retiring and manifested symptoms of mental depression, and finally simple melancholia became well developed. During this time she complained of a great deal of pain in the pelvic region. At childbirth she had a post-partum hemorrhage of considerable severity, and was a long time in recovering from her confinement. On examination he found the uterus enlarged, in a condition of subinvolution, there was laceration of the cervix, and in Douglas' cul-de-sac a body could be felt which was tender to the touch, and the patient suffered extreme pain when the body was subjected to pressure. Dr. B. F. Dawson examined the patient and regarded it as a case of dislocated ovaries. It was decided to remove the organs by laparotomy, and the operation was performed with the result of finding both ovaries enlarged and cystic, and both Fallopian tubes in the condition of hydro-salpinx. The patient was doing well. The change in her mental condition was very marked, and at the end of twenty-four hours after the operation a very noticeable improvement was manifest, which had steadily increased. Whether or not it would be permanent could not yet be stated.

CYSTIC DEGENERATION OF THE BROAD LIGAMENTS—HYDRO-SALPINX.

Dr. Brown also presented two other ovaries which were enlarged and, together with both broad ligaments, also in the condition of hydro-salpinx, were removed by laparotomy. The patient, about thirty-one years of age, was doing very well.

Dr. R. W. Amidon presented specimens with the following history:

CONVULSIONS—BROMIC ULCERATION—DILATED STOMACH—CONCENTRIC HYPERTROPHY OF THE LEFT VENTRICLE OF THE HEART—CONGESTED KIDNEYS AND SPLEEN.

Male, aged seven; bright and wilful. There is insanity in the family, also phthisis. Mother hysterical. The child had measles when three years of age, after which the mother thinks the child had general œdema. About the same time it began to have "spells," which were at first of a sensory nature, and confined to the right hand. Soon these seemed to become accompanied by spasmodic manifestations, which in the last year have become general. As described by the mother the attacks consist now of a fall, first tonic then clonic convulsions, eyes half open. Has never bitten his tongue or frothed at the mouth. Attacks now principally at night, coming on immediately on going to bed, when he has one after another till midnight. Of late has had two fits of same nature in afternoon. Appetite is insatiable, bowels regular. Has taken bromide of potash off and on for four years. Two years ago went one entire summer without medicine or attack. Attacks recommenced and bromide was again resorted to. Is now (May 2, 1883) taking .60 t.i.d. in pill form with some strychnia. For last few months has had a lesion on legs and about the eyes, which proved on examination to be a condition known as ulcus elevation—probably of bromic origin.

On examination the tongue is found coated, palate quiet; pulse, 140; speech not thick, but manner bromic. There were no hemiplegic phenomena, and the fundus oculi was normal.

Dr. Amidon suggested a stoppage of the bromide (it never seemed to control the paroxysms in the least), with the view of noting its effect on the general condition of the patient, the fits, and the cutaneous lesion. The bromide was stopped about April 19th.

May 24th.—Dr. Amidon had an opportunity to witness the convulsions. While asleep the patient would stiffen out and stop breathing. The face would first get red, then dusky, the eyelids would twitch and resist any attempt to open them. A cry, resembling the epileptic, followed this stage, breathing recommenced with slight stertor, the eyes opened in conjugate deviation to the right, the pupils dilating somewhat. When recovering the patient cries a little in a plaintive, frightened way, and keeps on sleeping. The only convulsive moment in these attacks was a straightening out of the legs. Sometimes there is slobbering on the pillow, and occasional wetting of the bed. The mother said there had been no day attacks lately, and fewer and less severe ones at night. The cutaneous lesion was at this time much better, and by August 1st had entirely healed. From this time on the case went on, all the time having attacks of varying severity and frequency. At one time there occurred by actual count *seventy-two* convulsions in *thirty-six* hours—about the average number being fifteen to twenty in twenty-four hours, most all occurring at night, and during the first sleep. These attacks were of a very nondescript character, some very epileptic in their manifesta-

tions, some hystero-epileptic, but more were an indescribable mixture of the two. The preservation of the health and mental acumen, in spite of these countless fits; their entire absence for months one summer when not taking medicine; their intractability to treatment by bromides; the preservation of conciousness in most of them; the absence of a bitten tongue and typical frothing at the mouth; their occurrence during the first sleep; their anomalous motor manifestations, and their apparent dependence, to a greater or less extent, on the state of digestion, led him to doubt the diagnosis of epilepsy, and induced him to try a radically non-epileptic treatment.

He ordered careful diet; during the day tonics, including iron, and at night aqueous extract of opium with quinine and extract of cannabis indica, to be pushed to mild narcotism. Under this treatment the child improved wonderfully, but very large doses of the narcotics were needed to produce the slightest physiological effects, and this circumstance, together with the fact of the child's enormous appetite, and a swashing sound in the belly, led him to suspect a dilated stomach. The diet was regulated, and, with a similar medication, later substituting morphia for opium and cannabis, the child at times passed nights with only one attack, and its general condition remained excellent.

One night, while in the midst of apparent convalescence, the child's respiration became embarrassed (not slowed, was twenty-four to the minute), œdema of the lungs came on, and, when apparently recovering from that, death ensued quite suddenly from failure of the heart.

An autopsy revealed œdema and hypostatic congestion of the posterior part of both lungs, congestion of the abdominal viscera, with some atrophy of the renal cortices.

The encephalon was large, beautifully developed, and healthy.

The right auricle was dilated and its walls translucent from extreme thinness; the right ventricle was dilated, its walls were very thin, and composed for two-thirds of their thickness of tallowy fat. The left ventricle was concentrically hypertrophied.

The stomach was dilated to about twice its natural size, and its walls were extremely thin and inelastic. The stomach contained undigested food, which had been swallowed twenty hours before death.

In attempting to regulate the diet Dr. Amidon was only partially successful; but while making efforts in that direction the child improved without medicine. Medicines seemed to produce no effect, and the explanation was believed to be in the dilated condition of the stomach. Perhaps the hypodermic method would have been more effectual. He was unable to give any explanation for the convulsions, as all parts of the brain were apparently perfectly healthy.

Another clinical feature of some interest was the fact that the eruption disappeared with the cessation of the bromide. Dr. Seguin had already reported to the society a similar case of ulcus elevation, in which the ulceration did not disappear after the use of the bromide had been discontinued.

(To be continued.)

PERITONEAL ABSCESS IN CHILDREN. — Dr. Goodhart has published notes of three cases of peritoneal abscess in children. The question of treatment in such cases requires great consideration; on the one hand, there is risk of pus gravitating into the hypochondria if a free opening be not made; on the other hand, there is a difficulty of draining the cavity of the peritoneum if an opening be made. Many cases do best if left to nature in young children, as an early incision may only open one abscess and leave several others.—*London Medical Record*, December 15, 1883.

Army and Navy News.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from February 2, 1884, to February 9, 1884.

BARNETT, RICHARDS, Captain and Assistant Surgeon. Granted leave of absence for six months on account of disability. S. O. 13, par. 8, A. G. O., January 16, 1884.

Official List of Changes in the Medical Corps of the Navy, for the week ending February 9, 1884.

VAN RUYPEN, W. K., Surgeon. From the U. S. S. Powhatan to the Navy Department, as Assistant to the Bureau of Medicine and Surgery, and Acting Chief of that Bureau.

HOEHLING, A. A., Surgeon. From special duty at Washington to the Powhatan.

Medical Items.

CONTAGIOUS DISEASES—WEEKLY STATEMENT.—Report of cases and deaths from contagious diseases reported to the Sanitary Bureau, Health Department, for the week ending February 9, 1884:

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever
Cases.								
February 2, 1884	2	11	95	1	39	45	1	0
February 9, 1884	1	7	89	15	55	37	0	0
Deaths.								
February 2, 1884	0	4	11	2	9	11	0	0
February 9, 1884	0	1	16	10	10	18	0	0

NEW YORK COLLEGE OF VETERINARY SURGEONS.—Peter Peters, Veterinary Surgeon, writes: "On page 131 of the last number of THE RECORD, I notice the following: 'The Columbia Veterinary Medical College and the American Veterinary Medical College have united, and New York has now but one veterinary school.' The above statement, which I have no doubt you made unintentionally, tends to mislead the public. The facts in regard to the above are about as follows: The New York College of Veterinary Surgeons was chartered by the Legislature of this State in 1857, and went into operation in 1862, at 205 Lexington Avenue. After several years of successful work, difficulties arose between the Trustees and the Faculty, resulting in the resignation or discharge of the latter, who organized the American Veterinary College in 1875. A new Faculty was selected, but at the end of one or two years new difficulties arose, and the Trustees discharged several of the professors, who organized the Columbia Veterinary College in 1878. A third Faculty was elected soon after, but for reasons best known to the Trustees, the active operations of the College were suspended until the fall of 1883, when the Board of Trustees and the Faculty were reorganized and a building, 332 East Twenty-seventh Street, was procured and a course of lectures commenced on October 1st. The New York College of Veterinary Surgeons is the only college in this State having the authority to grant the degree of Veterinary Surgeon. The schools above mentioned were incorporated under the law of 1848 for the incorporation of libraries, charitable societies, etc., and have no authority to grant the degree of Veterinary Surgeon."

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Original Lectures.

ON THE METHODS OF STUDYING THE BRAIN.

ABSTRACT OF THE CARTWRIGHT LECTURES, DELIVERED BEFORE THE ALUMNI ASSOCIATION OF THE COLLEGE OF PHYSICIANS AND SURGEONS, NEW YORK, FEBRUARY 2, 4, AND 6, 1884.

BY BURT G. WILDER, M.D.,

PROFESSOR OF PHYSIOLOGY, COMPARATIVE ANATOMY, AND ZOÖLOGY IN CORNELL UNIVERSITY, AND OF PHYSIOLOGY IN THE MEDICAL SCHOOL OF MAINE.

LECTURE II.

METHODS OF MANIPULATION: REMOVING, PRESERVING, AND EXAMINING THE BRAIN.

THE average first-year medical student in attempting to remove the brain usually lacerates it with saw and chisel; tears it in the effort to keep the sacred skull-cap entire; injures it yet more in the process of extraction, and places it upon a flat surface, where its own weight completes the rupture of delicate connections, and hopelessly distorts its shape. Here he leaves it, perhaps for a day or two, probably drying, and possibly freezing or decomposing, according to the temperature. He then transfers it to a basin or pail, covers it with strong alcohol, notes with satisfaction that the surface rapidly hardens, feels sure of finding out all about the brain, and sees himself a future neurological expert, or even an asylum superintendent. In due time, armed with his "Gray" and a large knife, he succeeds in identifying the cerebellum, the optic chiasma, the orifice left by tearing off the "pituitary body," and the pons Varolii. He also recognizes the fissures of Sylvius and Rolando, but the pia has dried upon the hemispheres, and the effort to detach it creates so many undescribed depressions that the detailed study of the convolutions is left for a more favorable occasion. Lifting the occipital lobes, his fingers presently find their way into cavities which must be the "descending horns of the lateral ventricles," thus practically refuting the opinion of certain "theoretical" anatomists that there is no such thing as a "great transverse fissure" until artificially produced. He then slides the brain *secundum artem*, and so great is his pleasure in demonstrating the "centrum ovale majus" that he is not seriously disturbed at the presence of an unexpected rent in the callosum and of an irregular orifice on each side. Continuing his operations, however, he finds the interior of the brain little more than a mass of nearly homogeneous pulp; at first fears that the alcohol was too weak, but, when satisfied upon this point, suspects that the names in the books have somewhat the same significance as those of the heavenly constellations, modestly admits that he may not be sufficiently advanced to study the brain, and resolves that, when he is personally prepared for this branch of inquiry, his armamentarium shall consist of not a scalpel, but a spoon.

Not only does the foregoing fairly describe what often happens, but there is little reason why it should not happen always. In what manuals of descriptive or even practical anatomy are there given adequate directions for the removal, preservation, and dissection of the brain? In what medical college do these matters form a topic of extended instruction? In what medical museum are they exemplified? How far is the average graduate prepared to make a necropsy for the sake of determining any critical encephalic question?

The fullest directions known to me are given in the "Practical Anatomy," by Heath, edited by Keen. The works of Quain and Allen give no directions at all, and, in the last edition of Gray, they are comprised within seven lines. The manuals of Delafied and Bevan Lewis have rather a pathological than a normal bearing, and certainly presuppose too much knowledge and skill upon the part of the reader.

Medical students seem to be credited with an inherent notion as to the way of removing a brain, as if the head were merely a nut to be cracked and emptied. Has it never happened in a medical school, that the exposition of the structure of the noblest and most intricate organ of the body has occupied less time than was devoted to the description of a few ligaments and bones? Has it not sometimes consisted in taking a brain, which was removed in twenty minutes, dashing it upon the table with an air of familiarity such as the baker displays toward his lump of dough, and hewing it into incongruous slices or tearing it to display artificial conditions? Has it never resulted that the principal acquisition of the students therefrom has been a profound conviction of the self-confidence of the demonstrator?

Are there not, in large cities of the United States, museums connected with populous medical schools, yet containing, perhaps, a few animal brains, but none displaying the normal human organ; perhaps a series of encephalic tumors and abnormalities, but no normal structures; perhaps even plenty of skulls, but no brains at all? If the prevalent customs are what they should be, how is it that the following sweeping assertion of a distinguished medical anatomist has stood upon the pages of a leading American medical journal without even an attempt at refutation?

"In our colleges . . . the only point of technic the medical student is taught is how to use his knife and forceps in dissection. He is given no instruction on the art of exploring viscera or gland-ducts, the methods of taking out the brain or spinal cord, the preservation of anatomical specimens, or the thousand and one things that he needs in making an autopsy or in preserving specimens. Judging from the condition in which specimens are often presented for inspection at our medical societies, it is evident that not one physician in a hundred knows the use of alcohol as a preservative."—*The American Journal of the Medical Sciences*, January, 1883.

Why, finally, in the case of that brain upon whose configuration alone it was thought by some might depend the decision as to whether there had been committed two murders instead of one, why was it possible that this infamous yet precious brain should be removed hastily and by the ordinary barbarous method, weighed in a grocer's scales,[1] neither photographed nor even sketched, and, in short, as regards its gross anatomy, so inadequately examined as to neither advance science nor establish justice? Not the brain of the most insignificant cat should be so lightly dealt with as was the human brain whose condition, whether cause or merely concomitant, presented the most solemn psychological problem of modern times. Whatever may have been the reason for

[1] THE MEDICAL RECORD, July 8, 1882, p. 53.

the absence of proper facilities for examination and for the neglect of such opportunities as may have existed, since the determination of Guiteau's insanity was in no degree aided thereby, for the credit of the medical profession of this country it would have been better that his brain should not have been removed at all.

Old ways are not necessarily good ways, and sometimes it is discovered that time-honored customs have nothing to recommend them save their antiquity. Notwithstanding, therefore, its archæological respectability, I am forced to characterize the well-nigh universally employed method of getting at the human brain for microscopic purposes, by "inserting a strong hook and giving a quick jerk," as anatomically futile and artistically brutal, alike disrespectful to the organ concerned and to the operator as a member of a learned profession; upon the whole, it is less admirable than the splitting of a pig's skull by the butcher for extraction of the brain as an article of food.

The principal features of the methods employed in the Anatomical Laboratory of Cornell University for the microscopic study of the normal brain are as follows: 1. The initial determination, if possible, of the use to be made of a given brain. 2. The concentration and preservative effort upon the parts especially desired, and, in some cases, a reduction of the mass to the region containing these parts. 3. The exclusive employment of alcohol as a preservative agent. 4. The maintenance of a low temperature during all preservative processes. 5. The injection of alcohol steadily, for from one to ten days, into the arteries, so as to harden the brain *in situ*. 6. The demonstration of the forms of the ventricles, and the contour of their parietes by the injection into them of alcohol, or of some mass capable of solidifying into a cast. 7. The systematic and intentional mutilation or even destruction of the skull for the sake of the brain. 8. The removal of the adult calva, after the usual circular incision, by hemisection a little laterad of the meson. 9. The exposure of the brains of fœtuses and small animals by means of nippers, the trephine, and the dental engine. 10. The avoidance of all pulling upon the brain, either active or from its own weight, by the observance of care in all manipulation, and by the constant support of the organ in brine. 11. In general, a treatment of the brain in a manner commensurate with its complex structure, its high office, the value of the information to be gained from it, and, last though not least, our own self-respect and consideration for our patients; for he who is habitually rough with the dead is certainly in danger of occasional disregard of the living.

In the following amplification of the methods just named, the scope of the present course and the lack of time confine me to the more novel and important features.

Lateral hemisection of the calva.—The scalp is divided, as usual, by a transverse incision from ear to ear, and the flaps reflected as far as possible either way. A cord is carried around the head from about 1 ctm. dorsad of the occipital protuberance, at a level with the ends of the scalp incision; if the string be kept in the same plane, it will cross the forehead 1.3 ctm. dorsad of the brows. This string is held steadily in place, and a light cut or black mark made along its entire length. With this as a guide, a firm, clean cut to the bone is carried about the skull, and the saw—which should be straight and sharp—is used along this cut. The operator should stop at frequent intervals and ascertain whether he has penetrated the skull by means of a moderately sharp point like that of the probe-end of the "tracer." The bone should be completely divided, excepting at four points, say at or near the four "corners" of the head. The string is then carried over the head about 1 ctm. dextrad of the meson, a guiding cut made as before, and the calva hemisected along this line. If the dextral piece does not readily come away after division of the two corners, a small, narrow-bladed palette-knife is passed between the dura and the calva first in the temporal region, where the latter is usually thin. Neither now nor at any time is force to be used.

The dural adhesions along the superior longitudinal sinus are now within reach, and may be loosened by the palette-knife or with a sharp edge if necessary, and, on division of its two attached places, the left side of the calva is readily removed. The two parts of the calva may be wired or cemented together.

Supporting the brain in brine.—So far the brain is fully supported by the dura, which, if proper care has been used, has not been divided by the saw. When the dura is removed, the brain is sure to tear by its own weight, unless constantly supported. The body is therefore raised to the level of a large pan or earthen dish full of brine, about twenty-two per cent. Good dairy salt should be used; if the salt is not clean, the brine is turbid and obscures the dissection. If it is desirable to avoid the spilling of brine, the vessel containing it may stand in a pan or tray. With the palette-knife the dura is separated from the skull as far as possible on all sides. In this way, by a little care, and by using a narrow, sharp-pointed knife for severing the olfactory filaments ectad of the dura, the *lobi olfactorii* may be removed entire. The dura must be divided along the margin between the anterior and middle fossæ and wherever its adherence to the *basis cranii* is very firm. The optic nerves are to be cut as soon as seen, and the infundibulum divided immediately afterward; if the hypophysis is wanted, it can be separately extracted after removing the brain. The subsequent steps in the operation would take too much space if described in detail, but, if the brain is constantly supported in the brine, there need be no trouble. When removed, its dorsum is still covered by the dura, and for some purposes—as, *e.g.*, the study of the base while fresh and alcoholic injection either vascular or entocœlian—it may be retained with advantage.

The exclusive use of alcohol.—For primary immersion or injection the alcohol is fifty to sixty-five per cent., and the strength is increased to ninety-five per cent., more or less rapidly, according to the size of the mass to be penetrated; with a small and thin-walled brain, like that of an embryo or *Necturus*, the full strength may be applied within six hours; with a large mass, as many days should elapse.

In affirming that alcohol is an efficient preservative of nervous tissue for macroscopic study, I neither deny the usefulness of other agents nor claim that alcohol is altogether adapted for histological purposes. The trials of other liquids in the anatomical laboratory of Cornell University have not been sufficiently extensive or systematic to warrant any generalization therefrom. Some of the other agents are cheaper than alcohol, but when the latter is obtained free of tax (as it may be for any museum or educational institution, under certain regulations) the cost is slight. How far alcohol will answer for histological purposes is not yet, I think, well determined.

The low temperature.—The value of this condition as an adjuvant to direct preservative agents is well known; indeed, an essential piece of laboratory furniture is a refrigerator of some kind. For some purposes an ordinary ice-chest, opening at the top, serves a good purpose. But all operations requiring a low temperature are more conveniently carried on in a cold closet or small room adjoining the laboratory. Such a place may be temporarily provided by inclosing a window and sufficient adjacent space by a glazed partition; during cool weather a sufficiently low temperature may be secured by simply opening the window.

Mesal hemisection of the brain, either before or after removal from the skull.—For the study of the fissures and gyri, and of all parts excepting such as lie directly upon the meson, the brain is well adapted if hemisected either before or after removal. Nor need the head be

frozen in the former case. If the saw be sharp and the teeth not much "set," the falx may be split in two and the mesal aspects of both hemispheres preserved. As this, however, requires considerable care, and the use of a sort of mitre-box or macrotome, it is desirable, to insure the safety of at least one mesal surface, the hemisection should be made 1 to 2 mm. laterad of the meson, and the adherent portions of the opposite side of the brain removed afterward with a scalpel. Each hemiencephalon is very easily removed from the skull.

If the brain has been removed entire, it may be hemisected with a large and very keen and thin knife, alcohol being poured on it as the section is made. The brain should be steadied by an assistant, and rest on a bed of cotton in a long, deep pan of brine.

The hemi-encephalon is to be hardened while resting on its meson upon a flat surface, preferably of glass. Since the bottoms of jars and dishes are rarely flat, the brain should rest upon a separate disk of glass which may be lifted from the vessel without touching the specimen. For two days the brain should be made to rise a little from the glass every few hours, in order to permit the access of alcohol to the mesal surface; then for a day it may be supported on its lateral aspect in a bed of cotton to prevent distortion.

Hardening the brain in situ by arterial injection of alcohol.—If not only the fissures are to be studied, but also the configuration of the whole brain is to be determined, the above-named method should be employed. Before alcohol is injected the vascular system should be cleared by the repeated injection of tepid water, until what escapes from the veins is uncolored by blood.

A canula is then secured in an artery leading to the brain; or, if it be desired to alinject the heart *in situ*, together with other parts of the body, one canula in the posterior cava and another in a pulmonary vein.

These canulæ are connected independently, or together, by means of a T-tube and rubber tubing, with a reservoir of alcohol, which is set upon a shelf at a sufficient height to insure a flow, or raised and lowered by means of a windlass. The animal or brain should rest in a vessel into which the alcohol escapes as it flows from the veins or oozes from various surfaces, natural and cut. The same alcohol may be used over and over, its strength being restored or increased by the addition of fresh alcohol.

As soon as there is reason to believe that the brain is so far hardened as not to be distorted by its own weight, a part of the calva may be removed, as above described, and afterward the dura. This permits the direct access of the alcohol in which the specimen lies, and any possible distortion may be corrected by the half of the brain which remains inclosed.

UNUSUAL PARTURITIONS—TWINS WITH SEPARATE AND UNBROKEN MEMBRANES.—Dr. E. R. Du Val, of Fort Smith, Ark., writes: "In your issue for December 29, 1883, I notice on page 718, 'Two Unusual Parturitions.' I have to report a similar case to that of Dr. L. Byron Dawley, of Seneca Falls, N. Y. January 12, 1868, I was called to Mrs. G——, primipara, aged twenty years, in labor with twins, boy and girl. The membranes were advanced beyond the vulva fully two inches, were ruptured with difficulty, foot immediately appeared, followed soon by the fœtus (boy) in its entirety, still-born. In half an hour after a second fœtus (female) was delivered, child, membranes, and placenta at once and together; the child was completely enclosed in the membranes, which were so thick as to require considerable force with the nails and fingers to break them. The child (girl) did well and is now a young lady, sixteen years of age. The mother made a satisfactory recovery, and has given birth to several children since."

Original Articles.

ARSENIC AND DIGITALIS IN PHTHISIS.[1]

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MANY a case of phthisis, or rather many a case of pulmonary affection known to terminate in phthisis under most circumstances, heals spontaneously or remains dormant. At least we have reason to conclude so when of a number of cases with the same physical symptoms one or more never develop into phthisis, while the others run their complete courses. As the proofs of incipient phthisis we consider catarrh of the apices, which is always attended with the presence of broncho-pneumonic deposits, of either recent or old date; so old, indeed, they may be that the history of their development dates back to infancy or childhood. Many cases of broncho-vesicular respiration over the upper, usually right lobe, diminished respiration, slightly bronchial expiration, moderate amount of dulness on percussion, and retraction of the supra- or sub-clavicular region are the results, quite often, of a single attack of well-remembered inflammatory disease. Add to this a flat chest, prominent shoulders, known hereditary disposition, persistent anæmia, and constitutional debility, tendency to catarrh, and occasional slight cough, and your diagnosis of incipient phthisis leaves nothing to be desired. But this condition does not necessarily lead to pulmonary disintegration and general consumption, but may remain stationary, and even improve to such an extent that the physical symptoms become more normal, the subjective symptoms easier, and the weight increases.

If that be true, and known to be so by every practitioner, if spontaneous recovery may take place, why, the inference is that—this spontaneous tendency being given—recovery is the more possible and probable under the influence of well-directed medicinal and dietetic treatment.

Caseous deposits, both glandular and pulmonary, are often found in post-mortem examinations where death had occurred from some disease not connected at all with pulmonary disease, in an inert condition; they meant nothing else during all the period of their existence but so much less respiring area. Practically that is phthisis retarded or stopped in its progress. Even repeated attacks of broncho-pneumonia, with deposits leading, generally, to consumption, will finally cease, fever and cough will disappear, the general health will improve, and the lungs be in a sufficient condition for practical purposes.

It is only the last stage, when abscesses form, pus will be expectorated, the blood get deprived of albumen, blood-cells become diminished in number, oxygen not be admitted in sufficient quantity because of the scarcity of blood-cells, assimilation be impaired and weight reduced by perspiration, diarrhœa, and sleeplessness—and when finally pus will be absorbed—that the chances of recovery become less. Hectic, like every other pyæmic fever, is apt to lead to death. But even such cases have been known to improve, or recover.

The treatment has to vary according to the stage; the period of gradual preparation, that of inflammatory action, that of pyæmic fever, have their several indications. It *has* frequently varied in accordance with the theories held concerning the nature of the disease. There were those who took *every form* of phthisis for a nutritive and diathetic disorder, those who saw in it a species of inflammatory disease in different shapes and degrees, those who looked upon *every* case and form of phthisis as an infectious disease either of chemical, or as modern bacteriomania will have it, of parasitic nature. These different forms have their different indications for medical treatment.

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[1] Read before the Medical Society of the State of New York, February 7, 1884.

On the effects of arsenic Isnard wrote a book in 1867. He administered arsenic mainly in malaria and phthisis. In both he explained its usefulness by its effect on the nervous system. He claimed that suppuration, debility, emaciation, vomiting, diarrhœa, and constipation would improve or disappear by it. The doses of arsenious acid used by him amounted to one centigramme (one-sixth of a grain) up to five centigrammes daily.

If there be any medicine which, besides quinine and mercury, has been called a specific in many diseases, it is arsenic. It is known to act as a poison, and a strong caustic. It prevents putrefaction, though as a real antiseptic it ranks even below salicylic acid. It acts very favorably in malaria, chronic skin diseases, maladies of the nervous system, and has considerable and sometimes unexpected effects in the treatment of lymphoma, even lymphosarcoma. In small and frequent doses it improves connective-tissue growth, it thickens the connective tissue of the stomach, and increases periosteal and osteal deposits. In the latter respect it is surpassed only by phosphorus, on the curative effects of which in subacute and chronic bone diseases I read a brief paper before you a number of years ago.[1] It is also said to improve the sexual desire and power, and the physical courage of animals. Thus there is a variety of effects, the uniform cause of which remains to be found. It can be traced back only, it appears, to the action of the drug on the cell. It is true that the different organs mentioned have cells of different structure, appearance, and function. But in regard to their nutritive processes the different varieties do not differ at all. At all events oxygen acts on all of them in the same manner, albumen is absorbed by them all, and osmosis regulates their circulation equally.

The increase of cell growth in all the tissues mentioned points to the mode in which arsenic must develop its action. It cannot accomplish what it is known to do without local stimulation and irritation, which when moderate improves growth, when exaggerated (by large doses or in predisposed persons) leads to granular degeneration.

Arsenious acid, when in contact with the constituents of the living organic cell, is oxidized up to arseniate acid. This is often reduced again to arsenious acid. Based upon these observations, Binz and Schulz[2] have advanced the theory that the cells are kept in a constant condition of irritation by these changes, which involve an equal variability in the conditions of the atoms of oxygen. Tissues endowed with a rapid metamorphosis must necessarily be affected more than others, and those in which the effect of the drug is mostly developed may be destroyed by degenerative processes, while a moderate effect results in irritation only. To accomplish this, it is immaterial whether arsenious acid acts as such or in some chemical combination. Its action, as long as it is restrained within certain limits, has been utilized by Hans Buchner[3] for practical and theoretical purposes. The former consists in its administration for phthisis, the latter in the attempt to fortify the bacillus theory. In his belief phthisis can be prevented by keeping out the bacillus. This is done by stimulating and gently overnourishing the cells, and thereby increasing the power of the organism to resist the invasion of the bacillus enemy. His theory is more shaky than his results. He relies on arsenic as his main medicinal resort in phthisis, and finds fault in Isnard only because of his using arsenic for curative only, and not for preventive purposes. In this remark lies the explanation of the effect which I claim myself also.

Consumption is almost always of long duration. The same nutritive disorder, the same inflammatory attacks recur frequently during the different stages. Besides the original disposition, there are, then, many attacks, every one of which can and must be treated when perceptible, or prevented before they fully develop. If such prevention be thorough, phthisis will remain dormant. That effect is accomplished by rational dietetics, climatotherapy, and finally by arsenic. I know it has been used formerly in that diseased condition called consumption, but the reporting of new experience does no harm. Besides, where two do the same thing, it is not the same thing after all, and the method of administration is more important than the fact of administering it. Under the permanent use of arsenic the infiltrations diminish, elastic fibres disappear from the expectorations, the strength improves, and the weight increases. Of this result I have convinced myself in a great many cases while they were in the incipient stages.

Trousseau and others recommended arsenic, in chronic pulmonary catarrh and asthma, in the shape of cigars. The indications in many cases are correct, the method of administration is very much less so; for there is no remedy the doses of which are less subject to, and tolerated in such uncertainty, as the smoking of arsenic cigars would imply.

Small doses of arsenious acid do not interfere with the efficiency of saliva, and gastric and pancreatic juice,[1] nor is the stomach itself affected by it. In some cases there is a slight sensation of pain or hunger, the result of which is increased appetite, and ingestion of food. However, as this larger amount of food is not followed by indigestion, the powers of the stomach must be presumed to be increased. Undoubtedly the innervation of that organ is improved. For this reason only, the general nutrition is improved also. This effect is so well known to farmers and veterinary physicians that animals are supplied with arsenic for the purpose of strengthening and fattening. Its use among miners is well known. In many cases of anæmia it is the best alterant and nutrient.

Hans Buchner asserts that the incipient stage is not the only period in which arsenic proves effective. That is true. It has the same, or rather a similar beneficial effect in the later stages. But he claims that complete recovery has been accomplished in the most severe cases, that perspiration and fever will cease, the pulse become less frequent and stronger, and the vital capacity increase even in far-advanced cases. This I believe to be overdrawn. Particularly in regard to the hectic fever I have almost always been disappointed. I believe that even digestion was not at all improved by arsenic in that stage. Thus it has become my rule not to prescribe arsenic at all while the fever is high, but to begin or return to it as soon as the temperature has a tendency to become normal.[2] When I acted on that plan I had very often the satisfaction of improving the condition of very doubtful and far-advanced cases.

The doses ought not to be large. Nausea, colic, diarrhœa, œdema of the eyelids are contraindications to the continuation of its use. One-fifteenth, or one-tenth to one-sixth of a grain of arsenious acid, daily, is a sufficient dose for an adult if it is to be continued for a long time. In order to render it less liable to give rise to disagreeable symptoms a little opium may be administered with it. In most cases of incipient phthisis this combination is pleasant and useful. In such as show intestinal symptoms at an early period, its joint administration is a particularly happy one. Still it may be remembered that gastric symptoms, attending the use of arsenic first, will be apt to disappear soon.

The preparations I use are either arsenious acid or Fowler's or Pearson's solution. The former it is best to give as a pill, in such combinations as I shall allude to shortly. Fowler's solution, three drops, or Pearson's solution, six drops, three times a day, in a few ounces of water, administered after meals, and gradually increased,

[1] Transactions, 1880, p. 310.
[2] Arch. f. exper. Pathol. u. Pharmacol., xi., xiii., xiv., xv.
[3] Die aetiologische Therapie und Prophylaxis der Lungentuberculose. 1883.

[1] Erich Harnack: Lehrb. d. Arzneimittellehre, p. 482. 1883.
[2] In the discussion following the reading of these remarks Dr. Drake gave expression to his favorable experience in regard to the value of arsenic in the fever of phthisical patients.

will act favorably. In but few cases the former had to be exchanged for the latter, because of the intolerance of the stomach.

In connection with the above remarks I venture to submit a few words in regard to another remedy which I believe to have been beneficial in a great many of my cases. Again I have no new remedy to advise, but desire to state that an old one has, in the course of three decades aided me much in relieving my patients. If I speak of as trite a drug as digitalis, I may be permitted to add, that while nothing that I say may appear new, it has seemed to me as if from year to year I learned better how to use it.

In the vertebrate, digitalis increases the energy of the heart-muscle and the volume of its contraction. Thereby it increases arterial pressure and diminishes the frequency of the pulse. In this connection it is of no consequence whether the irritation of the inhibitory nerve is the primary or the secondary element. By increasing the pressure in the arteries, besides favoring the secretion of the kidneys, it improves the pulmonary circulation, empties the veins, and thereby accelerates the circulation of lymph and the tissue fluids. Thus while having an immediate effect upon heart and lungs, it exerts a powerful influence on the metamorphosis of organic material, assimilation and elimination, that is, nutrition in general.

Thus both the local and general effect of digitalis are invaluable in all the stages of phthisis. While, however, they may relieve in the last, they are a healing element in the first stages. The congestive and nutritive changes constituting the preparatory, and, in part, the advanced stages of consumption, are favorably influenced. I seldom treat a case of phthisis without it. Very little care is required to avoid disagreeable results. Cumulative effects are either the consequences of excessive or too frequent—unnecessarily frequent—doses, or of the selection of improper preparations. Such as are soluble in water with difficulty only, ought not to be used, for it may happen that, having been inert for some time, a large amount may enter the circulation at once. Particularly is this true of digitalia, which is by no means a soluble alkaloid, but a crystallizable glycoside. I use the infusion, the tincture, the fluid extract, the extract. Their relative values I do not desire to discuss, except in regard to their advisability in phthisis, and the possibility of continuing them for a long time. Patients of that class we see from time to time only; they require advice and prescription for a protracted period; as a rule, their digestive organs are among the first to suffer; indeed many an alleged dyspeptic patient is affected with gastric disturbances first, and has his attention drawn to the lungs by his physician, who discovers the cause of his gastric catarrh in the retarded circulation of heart and lungs. In this case the stomach exhibits the peripherous symptoms of the distant diseased organs in the same manner in which a local disease of the brain or cord shows itself first, in affections of peripherous nerves. Now, whenever the stomach is much affected, neither the tincture nor the infusion is tolerated long. The latter may be given in three daily doses of half a tablespoonful each, or in two, of three teaspoonfuls each, for some time. But I seldom risk to recommend it for more than five or six days in succession without seeing the patient. The fluid extract has often disappointed me, I cannot tell why, nor do I claim to know why. What I mean to report is merely my experience. My main reliance is on the extract; my almost universal method of giving it is in the form of a pill, in such combinations as will suit the individual case. The stomach does not object to it, taste is not offended by it. I often prescribe one and one-half to one and three-fourths of a grain, corresponding with three and a half times its weight of digitalis, for weeks, without expecting to see the case again. It combines with extr. nuc. vom., with iron, with arsenic, with quinine in small doses, with extr. belladonna or extr. calabar, with extr. coloc. cmp., in fact with anything. Such combinations are frequently required in the early stages of consumption. The general muscular system requires toning up, the intestinal muscle requires strengthening, the intestinal tract evacuation, the intestinal and abdominal circulation easing. At the same time iron, as I mentioned, may be added, when there is no fever; or caffein, for its stimulant effect on heart and arteries.

Speaking as a general practitioner before a meeting of almost exclusively general practitioners, I desire to add, in this connection, a single remark on the general usefulness of digitalis in other cases. Every chronic disease, and the results of the wear and tear of what is called civilized life, has a depressing influence on all parts of the organism. The heart is not the last to suffer. Its muscular strength is tasked every second, it is the very organ which cannot and must not rest. Stagnation in an outlying province will overexert it, ill nutrition of the nerves will influence it, general anæmia exhaust it, infection paralyze it, weak circulation or venous obstruction interfere with its structure and strength. Now what alcohol and ether are to the nerve, strychnia to the muscle, that is digitalis to the heart, unless in a condition of myocarditis. The increase of arterial pressure it produces is beneficial not only to outlying provinces, it is so to the circulation and nutrition of the heart-muscle itself. Thus in all cases of general anæmia, in slow convalescence, where iron and nux are called for, digitalis is also required. It strengthens the heart, propels the blood in its own fibres, and shortens the period of recovery. I have learned to look upon digitalis, for restoring vigor and strength, as more than a mere symptomatic; I consider it to be one of the best tonics, along with iron, nux, and arsenic.

CERTAIN MATTERS OF TREATMENT WHICH SHOULD BELONG TO THE LYING-IN ROOM.[1]

By HENRY F. WALKER, M.D.,

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The physician's office in the lying-in room is, in one respect, peculiar. It is the only time in his professional life that he is called upon to superintend, and perhaps aid, a purely physiological process.

In all his other duties he deals with disease, but in the care he gives the parturient woman he is at hand to avert possible danger or to aid incompetent nature. This being the case, his endeavor should be to leave his patient in as good condition as she was before the parturient act. But too often he is called to see a well woman, and when he discontinues his attendance he leaves a chronic invalid.

I purpose to speak of some matters of care, of both mother and child, which I think properly belong to the lying-in room. Attention to these would, I think, diminish invalidism in women whose health motherhood has imperilled, and in the infant avert dangers which threaten its welfare.

My paper, which does not claim to be exhaustive, will be on "Certain Matters of Treatment which should Belong to the Lying-in Room." I propose to speak only of such troubles as may attend upon natural labor, but which may, nevertheless, leave a woman with health impaired, and years of feebleness before her.

The first in the natural order, as being first in the order of time, is the immediate care of the perineum. It can be fairly stated that no woman is delivered of a normal child, at term, without some perineal tear. Be it even trifling in degree, it should be immediately closed by sutures. First, to increase the patient's immediate comfort. The application of the sutures is but momentarily

[1] Read before the Practitioners' Society of New York.

painful, and though their presence may be recognized, the movements of the patient's body give no more suffering, with the sutures in position, than when the torn surfaces lap one upon the other. At the end of a week the soreness is gone, if union have taken place, while several weeks are required for the granulating surface to lose its tenderness and be shielded by mucous membrane.

Second, because the closed wound leaves one less avenue for septic entrance. If the wound heals by first intention the union is cemented in twenty-four hours, while the discharges seldom become poisonous before the second or third day.

These remarks apply specially to the slightest degrees of laceration, where the decision is between immediate attention and entire neglect. Where a greater injury has been inflicted it is better to close the perineum at once, because, besides the reasons already given in the lesser case, viz., the increase of the patient's comfort, and the lessened danger of septic absorption, a later operation will be required, and that is a matter of greater severity.

In these days, when operations are common, and every woman, or at least her bosom friend, has had special treatment, nothing is more common than for a woman to ask, at once, after delivery, if she be torn, and to express desire for immediate treatment. It is useless to attempt deceit, as it will be sure of detection, and unnecessary, because, even popularly, no blame attaches to the accident. But, for that very condonation, blame does attach to neglect of such an injury after its occurrence. Results, too, are almost always favorable.

In my own practice an average of eight cases in ten have healed by first intention. A few times, from suspicion that a rise of temperature might be due to imprisoned pus, I have removed the stitches prematurely, but in no case has there been any untoward result. In some cases I have failed to operate and have regretted my neglect, but in no case where I have operated have I wished that I had pursued the other course.

It seems strange that any other habit than that of immediate closure of the wound should have obtained. In no other situation has it been the habit to prefer a healing by granulation to union by first intention. If a nostril were torn, the mouth gashed to double its size, the first effort has always been to bring the parts in close apposition and retain by sutures. But many a woman, nearly torn in two, has been allowed to suffer the slow torture of a possible healing by granulation.

As to the means to be employed, if not in one's pocket-case, they are always at hand. A button-needle and embroidery silk, or dentist's floss, have in several instances stood me in stead. The silk suture is preferable to silver wire. Its perfect softness and pliability prevent all the suffering which every contact with the twisted wires occasions. The union is as perfect with silk, and though there is likely to be a little suppuration in the track of the threads, the additional comfort that is gained in motion and dressing by using a pliable instead of a stiff suture is sufficient reason for employing the former.

The second matter—often neglected, but deserving of attention in the lying-in month—is the condition of the uterus as to its position. Every woman should be examined by digital touch three or four weeks after delivery, or when beginning to move about freely upon her feet. Any descent of the uterus, or a slight alteration of normal axis is easily appreciated, but, what is of more importance, is then easily rectified. A light uterine support worn at this time, for a brief space, will achieve what no pessary could at a later one. I make such an examination, and if I find prolapsus or retroversion in the first or second degrees, I do not trust to nature, but attempt her aid by causing a pessary to be worn till involution has lightened the uterus, and the uterine supports have gained their tonicity and their normal size. I feel as well assured as one can, that cases of threatened severity have thus been cured.

Several cases I have had that have been relieved of chronic retroversion by the use of a pessary during the period of involution.

In cases where the uterus lies lower than normal, but is anteverted, less can and less needs be done. The axis is more nearly correct and attendant inconveniences are less, while nature, in this case, is more competent to remedy the fault. But here, also, slight support, by preventing passive congestion of the displaced organ, will in a measure diminish the tendency to a hyperplasia, which might result.

The nurse will usually tell the patient that the "sense of falling" is perfectly natural, and that it will disappear as strength comes. But in many cases the symptom is an indication of a true uterine displacement, which a little care will remedy, but which neglect will aggravate. There is no time so favorable to treat the malpositions of the uterus as that following delivery. The womb as well as its supports are then undergoing active change, and with proper assistance can regain normal strength and tone. We look to the parturient act to remove the mechanical dysmenorrhœa of the nullipara, and we may look to it also as a means of improving many cases of displacement, and most cases of hyperplasia, unless a lack of careful management, during the precious weeks following delivery, allow the troubles to aggravate.

The third matter I would specify, as usually neglected but deserving of care during the lying-in month, is the prepuce of the male child. Great attention has been called of late years to the influence of phymosis upon the child's nervous system, and I have had many instances where improvement in general health, as well as in local nervous disturbances, has followed the removal of an adherent prepuce. So manifest has this been to the parents, that when a male child was subsequently born in a household where a child had been circumcised, the mother has always been eager that the same operation should be performed on the successor. The popular voice is in favor of the operation.

It should be attended to in the lying-in room. It is a well-known saying among nurses, that boys are worse than girls, more restless and fretful. This I think is mainly due to preputial irritation. My attention was first specially called to this condition by two cases which were unable, or very insufficiently able, to empty the bladder. The release of the prepuce immediately relieved the symptom, and one boy, who for six days had wet only once in twenty-eight hours, urinated almost regularly every three or four hours. The other, with even severer symptoms, was at once benefited, and all disposition to retention was overcome.

Since these cases occurred, I have examined the prepuce in every male infant, and have operated on all that seemed to demand interference. In the majority of cases at birth there is adhesion between the two mucous membranes, the orifice of the urethra and that of the foreskin not differing much in size. In cases where the preputial orifice allows, I push it back, separating the two agglutinated surfaces with a probe. This can be done, I think, in one-fourth the cases. In three-fourths either very forcible stretching or a cutting operation is needful. Of these I much prefer the latter method of treatment. A linear incision slitting the prepuce on the median line is all that is needful, and there is no necessity of circumcision. The splitting up the prepuce is efficient, and equal in appearance. Besides, a demonstrable foreskin is left, which some prefer. In manhood this method results in deformity; in childhood the result is doubtful in this regard; in earliest infancy the result is perfect, provided after operation care is taken that the foreskin shall heal, leaving the glans constantly exposed. The chief reason why the less operation is equally efficient, and therefore should be performed in early infancy, is that the cuticular and mucous surfaces are then equal in development. As the child grows the mucous surface, perhaps by its adhesion, seems to develop less rapidly, all growth is apparently limited to the outer surface,

which elongates in folding upon itself so that it quite conceals the urethral orifice. The form known as "little boy's prepuce" begins development early, but if the operation is made in the first fortnight the incisions in skin and mucous membrane are almost equal in length. In two months' time the prepuce with its infolded skin will be nearly double the size of the mucous lining covering the glans.

As to the time of interference, unless there be retention of urine, as in the two cases I mentioned, I believe that the rule established by Jewish and Mohamedan usage is a good one. By that time all possible septic trouble from the cord is removed, and the mother is too far advanced in convalescence to be troubled by any possible shock to her nerves.

If the prepuce is slit back as far as the corona and the two mucous surfaces separated, there will be no after trouble, and at three years, save that the glans is uncovered, there will be little sign of the surgical interference. My reasons for advocating this plan are these:

Sooner or later the boy or man will require some treatment similar to this, the splitting of the prepuce or its circumcision. If likely to be required, all things being equal, it had better be done early than late. It is better that the child's system should escape the long nervous strain that the constant preputial irritation gives. If done early the lesser operation gives equally good results, both as to efficiency and appearance.

The points I have endeavored to make are these:

First.—Examine every woman immediately after delivery, and if there is any laceration, even a trifling one, close at once with silk sutures.

Second.—Examine every woman when she begins to move about, and if there be displacement of any kind, anteversion, retroversion, or prolapsus, introduce a proper pessary, with the hope that its temporary use during the period of involution will establish a cure.

Third.—Examine at birth every male infant, and if the prepuce be so contracted or adherent that, with probe and pressure, the glans penis cannot be uncovered, operate by splitting the prepuce as far back as the corona with scissors or bistoury; the chosen time for operation, unless urgent symptoms present themselves, being the ninth day.

ON THE SO-CALLED RHEUMATIC FOOT.

By CHARLES F. STILLMAN, M.D.,

NEW YORK.

THE object of this paper is to draw attention to the means of relief which can be afforded a large class of individuals who suffer from a form of lameness attributed to a relaxation of the arch of the foot. This occurs most often in people of heavy frame, lymphatic temperament, and indolent disposition, and they are thereby incapacitated from taking sufficient active exercise for the requirements of the system.

Its existence in connection with the rheumatic and gouty diathesis has caused it frequently to be considered as one of their local manifestations; but it occurs so often independently of such systemic condition as to warrant its being considered rather as a complication when found in connection with them.

These patients are usually prevented from standing or walking by the severe pain which such exercise occasions, and thereby are caused to remain indoors, and often confined to the room or bed, the horizontal position alone giving relief. When walking is attempted the gait is most awkward, there being an effort to prevent the inner border of the foot from bearing the superincumbent weight, and this causes a peculiar characteristic waddle. There is eversion of the foot as a whole, and the inner surface touches the ground instead of the outer. Pressure over the junction of the astragalus and inner malleolus, and the borders of the mediotarsal bones which present internally, causes pain, which is much aggravated if the patient stands. There is usually very little power of inverting or elevating the inner portion of the foot, and the tibial muscles are deficient in development.

Among the causes of this deformity the foremost is prolonged standing or walking, thereby fatiguing the tibial muscles, whose function is to support the arch. When the arch of the foot is properly supported by vigorous muscles, its component parts are held together so securely as to sustain the weight of the body without giving way; but if the muscle becomes fatigued either by too much standing or walking, and thereby relaxed, and if the person be heavy or of lax fibre, the arch flattens, and if the cause be repeated often it flattens to such an extent as to produce painful pressure upon articular surfaces, which normally are not in contiguity, thus producing inflammatory conditions of the parts. An inspection of these cases reveals, 1st, complete flattening of the arch; 2d, apparent subluxation of the mediotarsal bones; 3d, eversion of the foot as a whole; 4th, considerable puffiness behind and under the internal malleolus, and a wasted condition of the tibial muscles, the spine of the tibia being more prominent than normal, and occasionally the anterior half of the foot will be bent outward on the posterior at the mediotarsal junction. By palpation the mediotarsal bones are found to be abnormally prominent, although the deformity is comparatively slight. There is also a morbid relaxation of the tibial muscles and the ligamentous structures of the tibiotarsal and intertarsal articulations.

In the treatment of this condition there are three indications to be met. *First*, To place the bones of the foot in their normal relations to each other. *Second*, To re-establish the arch, and place the foot in such relation to the leg that the weight of the body when transmitted to the foot will be received by it while in a normal position; and *third*, To restore the tone of the muscles. To meet the *first* indication it is merely necessary with the hands to untwist the deformity, forcing the foot around into the position of a slight varus, and while in this position apply a broad strip of soft moleskin adhesive plaster, the edges of which should be nicked to prevent cutting the flesh. This strip of plaster should begin just anterior to the internal malleolus, and be drawn tightly around over the instep and under the arch to a point beyond the median line, so as to completely encircle the foot. This will retain the mediotarsal bones in their correct position if the other indications are also met. The *second* indication, restoring or preserving the arch when the weight of the foot is borne upon it, is best met by having a wedge of cork cut to the shape of a normal arch and inserted in the shoe, being covered by thin muslin or leather to form a smooth surface for the bottom of the foot. This presents a firm and somewhat elastic support to the arch, and prevents its flattening. The heel and sole of the shoe should also be sliced off or constructed higher upon the inner than the outer side, or an insole of this shape may be inserted inside the shoe. If the case be markedly severe, and the weight of the patient be so great, and ligamentous relaxation be so complete as to require still further support at the ankle, an inside spring may be attached vertically to the sole in such a manner as to be at an inclination, so that when the girth is buckled around the ankle the inner side and edge of the foot will be turned upward, forcing the patient to walk up on the outer side. This brace is rarely necessary, however, and when considered advisable can be so constructed as not to be apparent to the observer, being attached below to the sole inside the shoe, and passing vertically inside the shoe to the girth which is fastened to the leg just above the ankle. The *third* indication is met by faradization of the muscles, while the foot is held in the position of a varus by the hand of a surgeon, it being also desirable to have the patient voluntarily contract the muscles which return the foot in that position. This is a point of much importance in the faradic treatment, as it causes the faradic force to act supplementary

to the voluntary nerve-stimulus of the will. By a combined use of these agents these patients can be made so comfortable that they can attend to their ordinary pursuits and can walk long distances with comparative case.

FLORENCE HOUSE.

THE TREATMENT OF WRITERS' CRAMP AND ALLIED MUSCULAR AFFECTIONS BY MASSAGE AND GYMNASTICS.

BY J. WOLFF,

NEW YORK.

WRITERS' cramp, the inability of the hand to write, and, in a more extended sense, to perform the finer mechanical movements required in knitting, piano and violin playing, sewing, painting, telegraphing, etc., has been looked upon by physicians partly as a peripheral, partly as a central affection, and has hitherto been regarded an unsolved problem. It sets in almost imperceptibly, manifesting itself first by a slight stinging and occasional lancinating pain in the hand; by degrees the pain becomes noticeable in the wrist, in the arm, in the region of the shoulder, not rarely it extends toward the back. At this time the patient becomes conscious of an increasing sense of weakness in the hand; this is felt especially by the fingers used in writing, they begin to contract, the hand-writing deteriorates, its legibility diminishes, and finally the patient either can no longer write at all, or at most can barely scribble on the paper with the greatest difficulty and fatigue. Corresponding to the involuntary opposition movements, there appear on the paper unintentional hooks, at times quite amusing blotches of ink, and all sorts of strokes disfiguring the handwriting. At last the fingers not only refuse to write, but are unable to perform all the finer motions, such as winding a watch, carrying a spoon to the mouth, knitting, sewing, etc., while any other work can be done without difficulty. But as soon as the pen, or the needle, is again grasped in the fingers the contractions recur.

For the cure of this affection all imaginable remedies have been tried: electricity, narcotic inunctions, sea, mud, and other baths, pneumatic and hydrotherapeutic treatment, tin, strychnine, myotomy. They were all in vain; tenotomy has been performed, the entire range of therapeutics have been exhausted to no purpose; finally attention has been directed to constructing peculiar penholders, bracelets, etc.; in short, nothing has been left untried, but no results have been secured. Possibly one or other auxiliary may have produced temporary amelioration. I call to mind the bracelet invented by Nussbaum in 1882; a pen-holder so constructed as to be guided by the extensors of the first four fingers and the abductors of the thumb—complete cure, however, has never been obtained.

It was recommended to write with the left hand, but difficulties arose from the beginning, and gradually the disease reappeared also in that hand. Hence nothing remained to the patient but to discontinue writing, piano-playing, knitting, and all the lesser manipulations followed by spasm and pain.

But even rest did not help, and the patient had to submit to his fate. The physician had no remedy for him, nor did rest give him any that would enable him to support himself and his family.

The patient now applied to the writing-master, and in this, my former calling, I became familiar with this troublesome affection; but it was clear to me at once that mere instruction in writing, no matter how carefully adapted to the individuality of the trouble, would not suffice here. I was convinced from the outset that this disease, in general, could not be of a central nature, but rather must be a disturbance of the musculature involved, be its cause what it may, and for this reason, because it appeared only during the use of the muscles, but not otherwise.

Having familiarized myself with the mechanism of the hand and arm in their various motions in this activity, I comprehended where the first causes of the trouble should be sought, and I endeavored to enlarge and amplify this knowledge by a careful study of anatomy and the attendance of the lectures of numerous eminent physicians. Proceeding from this fundamental study to a review of the activity of the entire nervous and muscular systems in their intimate connection, together with the most frequent disturbances related to organic life as a whole, I developed my method of treatment, which is not empirical, but is based on the recognition of the proximate as well as the general causes of the disease, and which aims not at a temporary, but a thorough and permanent cure of the malady.

The means employed in my method, in general, are massage and gymnastics combined in a novel way, their effects being mutually antagonized, and, moreover, the application of these two curative factors is carefully adapted to each individual case with special reference to the antecedent history and the general condition of the patient.

Let us assume, for instance, a pronounced spasm of the flexors. Here the muscular antagonism is pathologically altered, there is a spastic contraction of the flexors and abductors. In proportion as this continues the sense of weakness increases and the handwriting becomes more uncertain. As the contraction ceases, the weakness diappears and the cramp is cured.

However, the cramp does not affect all the five fingers, but usually only those actually engaged in writing—the thumb, index and middle fingers—of these either all the three, or only two, but never one alone, because the pen cannot be grasped and held with one finger only. In order to definitely find the fingers affected with the spasm I perform massage of these three fingers, beginning with the thumb, partly centrifugally, partly centripetally, as far as the wrist; I then cause the patient to execute different free motions, such as bending and stretching, spreading and contracting, continued for hours until the hand is fatigued, and these are repeated till the patient is able to move each finger voluntarily in all directions.

These manipulations, carefully repeated three times daily, have done me excellent service, and the affection, in most cases, was cured completely in from three to four weeks. But inasmuch as the spasm appears in different forms, and as its causes vary, the treatment of every single case must likewise be different.

In the rather numerous cases treated by me in Europe, in the last few years, I have generally effected the cure because I took only such as were local in their nature, and the accurate examination of which presaged good results. I beg to refer to the *Progrès Médical*, Paris, of January 21, 1882, and the *Deutsche Medicinal. Zeitung* of January 25, 1883. The latter medical periodical demonstrates that, on examination at a stated meeting of the Medical Society in Berlin, of various cases, partly writers', partly pianists' cramp patients, the cure had remained permanent four years after my treatment, that the handwriting was easy and fluent, and that no relapses have occurred.

This combination of massage with gymnastics, which is so effective in the above affection, is equally applicable to the most heterogeneous disturbances of muscular activity, as is evidenced by the cure of several cases which have been kindly referred to me by several physicians of this city.

[To Mr. Wolff's above communication we append a letter in which he refers to a charge made against him that he is not the originator of his peculiar mode of treatment.—ED.]

I am the first and only inventor of "the method of curing writers' cramp and kindred nervous affections." Both in theory and practice the method is mine, my own, and nobody (physician or otherwise) has, to my knowledge, ever succeeded in curing the maladies mentioned. As to

Dr. A. Schott's claim, of which I am well aware, I wish to make the following plain statements, keeping, as I have said, entirely to facts.

I became acquainted with Dr. A. Schott through his brother, Mr. Theo. Schott. The latter studied medicine at Berlin in 1878, and was there introduced to me. Though I had treated writers' cramp successfully two years before, yet my method was not widely known as it is at present. Mr. Theo. Schott expressed his opinion to me to the effect that I would never be able to obtain a testimonial or certificate from any physician of repute, or gain the recognition of the medical world. But as my treatment met with fresh successes day after day, Mr. Theo. Schott grew more curious and plied me with direct and indirect questions whenever occasion offered, and no sooner had I shown him a highly complimentary card by Professor Bardeleben, than his personal affection for me increased to such a degree as to lead him to proffer the intimate "Du" (Thou) to me, instead of the "Sie" (You), assuring me of his love and friendship, etc. He often visited me, and at Frankfort introduced me to his brother, Dr. A. Schott. Both gentlemen again and again questioned me about my method, but they never received another response to their numerous inquiries than that the same consisted in a peculiar combination of massage with gymnastics. When first introduced to Dr. A. Schott I had been practising my method for almost three years, and had cured writers' cramp successfully since 1875, and during all these years the doctor had never published a word about writers' cramp, had never claimed to have discovered a remedy or invented a method for its cure, and his name had never and nowhere been mentioned in any connection with any such cure or method whatever. It was only after I had visited Paris (in 1882) and cured several so-called incurable cases, and when later, the *Progrès Médical*, by the well-known article about my method, had given it the widest publicity, that Dr. Schott put in a claim to priority of invention. My astonishment may well be imagined! These are the facts. Permit me to add a few remarks for impartial consideration.

First. Why did Dr. A. Schott, both in the interest of medical progress and science, as well as in his own, never publish his own *original* method till after the publication in the *Progrès Médical*, six years after my first cure?

Second. Massage and gymnastics have existed and been known long before I invented my method, long before Dr. Schott and Mr. J. Wolff were born. But only the latter has treated and *cured* writers' cramp, etc., by a combination of both, while the former has treated patients suffering from such affections, but *never* succeeded in curing any. Cases which Dr. A. Schott had unsuccessfully treated applied to me afterward, and I *cured them.* If necessary I can furnish the names.

THE USE OF THE MENTHOL CONE.—Dr. D. Cammann, of this city, writes: "The notes on the use of the menthol cone by Dr. Wendt, in a recent issue of THE MEDICAL RECORD, remind me that since my article of April 28, 1883, I have used menthol in cases of toothache with favorable results. A few of the crystals are scattered between two layers of raw cotton and applied over the seat of pain. A burning sensation is soon experienced, but no bad result has followed its application directly to the mucous membrane. Its use in this direction may, I think, be extended in the future, and its application to the throat in solution and in the form of spray will no doubt be attended with beneficial results in many cases. Several physicians have reported to me favorable results from its use in the past few months. The list of drugs useful for the relief of pain by local application is not so large that we can afford to let a good thing like menthol hide its light under a bushel and lie idle on the shelf."

A CASE OF SUPERFŒTATION.

BY J. W. LEWIS, M.D.,

LANCASTER, O.

ON December 21st I was called to see Mrs. K——, in her tenth confinement. She was a rather fleshy German woman, aged forty-five. The labor was rather slow, but not particularly annoying, and in due course of time she gave birth to a healthy, well-developed female child, at full term of gestation. Nothing unusual attended the birth, so that up to this point everything was satisfactory. But upon removing the child from the bed, and placing my hand upon the abdomen of the mother, I found the uterus contracted tightly over an apparently solid mass, measuring about eight inches in its transverse diameter, and about twelve inches in its long diameter, marking an ill-defined oblong square. Waiting as long as I thought it safe (on account of hemorrhage) for the uterus to empty itself, I proceeded to remove a firmly adherent placenta, which presented the following peculiarities:

1. The placenta was twice the ordinary size. 2. On the free surface of it were a large number of calcified nodules, from the size of a pea to that of a large hickory nut. 3. At least two-thirds of the placenta consisted of a peculiar lardaceous formation resembling cheese, and readily breaking down when pressed between the thumb and finger, showing a moderately well-defined fracture. 4. Near the centre of this placental formation, embedded in and adherent to it, was a large cyst, containing something over a pint of fluid, floating in which was a well-developed male fœtus three and one-half inches in length, attached by an umbilical cord of small size to an expansion (of the cord) resembling a placenta on the inner surface of the cyst, evidently having received nourishment from the mother, as the fœtus showed good nourishment and but recent death. The mother made a good recovery.

Progress of Medical Science.

LARYNGEAL CHOREA.—At a recent meeting of the Academy of Medicine of Paris, M. Blachez reported two cases of laryngeal chorea (*Journal de Médecine de Paris*, October 20, 1883). A child, the son of a rheumatic father, was taken with a frequent hoarse cough, without fever or pharyngeal congestion. Five days later the cough became paroxysmal and a little painful. There were no râles in the chest. The general condition was good, appetite well preserved, no choreic movements of the extremities. Belladonna, valerian, cold compresses, and sulphur baths having been tried without effect, recourse was had to bromide of potassium. The character of the cough became then modified. Instead of being hoarse and jerky, it resembled a slow chant of two identical low-toned notes. The duration of each attack was about three-quarters of an hour, during which the child seemed to be excited and his face was flushed. The history of the second case was but a repetition of the first. Dr. Blachez regarded the affection as a sort of incomplete chorea, the manifestations of which were confined entirely to the larynx, whose origin was explained by the rheumatic antecedents. The bromides had no more favorable influence than the other antispasmodics. The only remedy which succeeded in curing the affection was chloral. Its administration was followed by a febrile movement, and the author thought that this fever perhaps exerted a beneficial influence in causing a disappearance of the disease, as it has been observed to do in certain cases of pronounced chorea.

A CASE OF MELANCHOLIA IN A CHILD.—Dr. Kavaleffski relates the case of a boy, of eleven years, whose physical growth had always been slow, and who was weak and thin, but whose mental development had been nor-

mal, and who was good-hearted and of light disposition. At this time he had scarlet fever, followed by diphtheria and pneumonia, after recovering from which he was very weak and irritable and suffered from occasional night terrors. A few months later he had an attack of measles, and after this lost interest in everything, sought to be alone, cried for whole days without any reason, and imagined that he was always being pursued. He began to believe that he was good for nothing, and that he was obliged to die, and was continually begging people that they would not let him die. He would give only short answers to questions, and sometimes none at all. It was impossible to engage him in any continued conversation, and frequently he would repeat others' or his own words automatically. He was very anæmic, had no appetite, and suffered from insomnia. He was ordered nourishing diet, cod-liver oil, warm baths, and a life in the open air. Under this treatment he gained flesh, and his anæmia was cured, and along with the physical improvement his mental condition gradually returned to the normal. The author remarks that this case is confirmatory of the opinion of Meynert, that melancholia is due to cerebral anæmia. —*Allgemeine Medicinische Central-Zeitung*, November 10, 1883.

THE RECIPROCAL ANTAGONISM OF POISON.—In a number of experiments undertaken to determine the antagonism between atropine and pilocarpine, Dr. M. Rossbach found that he could overcome the effects of the latter by means of the former, but that he was unable to antagonize the action of atropine upon the sweat glands and the pupils by the exhibition of pilocarpine, provided a sufficient quantity of the former were given. It made no difference whether the two drugs were administered together or one after the other. In studying these effects he recognizes two parts of the glands—the nervous and the cellular. Small doses of atropine and pilocarpine act only upon the nervous parts, the former having a paralyzing and the latter a stimulating action. An apparent reciprocal antagonism may be noted when very small doses of atropine, acting thus as a paralyzer of the nervous portion, are overpowered by large doses of pilocarpine acting as a stimulant to both the nervous and cellular portions of the glands. But this antagonism is not seen when doses of the paralyzing drug large enough to act upon both portions are exhibited. The author concludes, from his experiments, that there is no true reciprocal antagonism between two poisons. The toxic paralysis of any limited portion of an organ cannot be overcome by a drug acting as a stimulant to that portion. But the increased activity of any such limited portion, induced by any stimulating drug, may not only be antagonized by a paralyzing poison, but in spite of previous stimulation the part may become paralyzed.—*Allgemeine Medicinische Central-Zeitung*, No. 79, 1883.

THE BACILLI OF LEPROSY.—Several years ago Dr. G. H. Hansen, of Norway, discovered a micro-organism in leprous nodes, but as nothing of the kind had been noticed in any other chronic disease at that time he was rather skeptical as to the causal relation of the parasite to the disease. While he was engaged in these investigations he was visited by Neisser, of Breslau, who took some of the material home with him and succeeded in staining the bacillus, thus demonstrating its existence. About the same time, Hansen also was successful in his attempt to color the parasite. He had before this endeavored to inoculate animals but obtained no results. Neisser made a journey to Grenada to study leprosy, and while there made several attempts to inoculate dogs with the disease. In one instance, after the insertion of a leprous nodule under the skin, a tumor was developed which he thought was a proof of the success of his experiment. There was no general infection, however, and it seems very doubtful whether the tumor was really of a leprous nature. Hansen inoculated two apes, one with a leprous nodule inserted under the skin, the other by injecting a drop of a culture fluid into the lobe of the ear. Both apes died, and though they were tuberculous there was no trace of leprosy to be found in them. There was no tuberculosis of the lymphatic glands in the neighborhood of the parts in which the inoculation was practised, nor was there any ground for believing that the tubercular infection was the result of the introduction of the leprosy bacilli. The bacilli of tubercle resemble those of leprosy so closely that it is difficult to distinguish them, yet they differ sufficiently to enable them to be recognized as separate organisms. It is possible that the bacilli of leprosy may only fructify in the human species, and in any case the negative results obtained in inoculations upon animals by no means disprove the contagiousness of the disease. Dr. Hansen is now trying to cultivate the bacilli in the solidified blood serum of different animals after Koch's method. He has succeeded in the case of human blood serum kept at a temperature of 96° to 102°. If he is able to cultivate the micro-organism in the serum of any other animal it would seem probable that inoculations practised upon animals of that same species would be successful. He has thus far failed to cultivate the bacilli in the blood serum of oxen and domestic fowls. Although the question of the etiology of leprosy is as yet by no means settled, the argument in favor of its contagiousness has certainly been strengthened. The bacillus has been proven to exist in every case of nodular leprosy, and although Hansen has not found it in the smooth form of the disease, the failure so to do may be owing to his want of skill in staining. Another fact that speaks for the theory of contagiousness is its gradual decline of late, due undoubtedly, the author maintains, to the more thorough isolation that is now generally insisted on.—*Hospitals-Tidndee*, No. 32, 1883.

TUBERCULAR PERIURETHRITIS.—At the recent Congress of German naturalists and physicians, Dr. Englisch presented a paper with this title. The disease, he says, begins as an inflammatory tumor in the bulbous portion, usually as an inflammation surrounding the urethra, or involving Cowper's glands. It extends constantly, as well toward the surface, leading to perforation of the skin, as in other directions toward the urethra, prostate gland, rectum, or epididymis. The urethra is often perforated, usually at the junction of the bulbous and membranous portions, though sometimes in the pendulous part. The disease is characterized by a growth of fungous granulations resembling very closely those seen in tuberculosis of the articulations. It occurs in tubercular and tubercularly disposed individuals, and may arise from urethritis, specific or otherwise, injuries of the urethra or perineum, or anything which occasions or is accompanied by inflammation. The course of the disease is usually slow, yet in some cases it is quite rapid. If there is already a pulmonary affection it now progresses more quickly, and if none has existed it is now developed. Since the fungous granulations present great resistance to all modes of treatment, there is but little to be accomplished in the way of cure. New granulations are continually formed, and any attempts to close the fistulas are unsuccessful. The retention of a catheter for a sufficiently long time to allow of their closure, is rendered impossible by reason of the quickly produced vesical catarrh. Hence the therapy is narrowed down to attempts at improving the general condition by means of constitutional remedies.—*Centralblatt für Chirurgie*, November 3, 1883.

SUBCUTANEOUS EMPHYSEMA DURING CHILDBIRTH.—Dr. Chahbazian relates the case of a healthy woman, twenty years of age, in whom, during a violent effort made near the end of delivery, a small tumefaction was noticed just above the right clavicle. This tumor rapidly increased in size and involved the right side of the face as far as the eyelid, as well as the neck and upper part of the chest. There was neither redness nor pain,

the swelling gave a sonorous percussion sound and was crepitant on palpation. The swelling gave no inconvenience to the patient, except from its size and the fear which it inspired. The labor was speedily terminated and the tumefaction gradually subsided, having entirely disappeared at the end of a week. The point of origin of the emphysema was not clearly determined. But the author thought that it most likely arose from a rupture of some of the pulmonary vesicles in the mediastinum at a point where the lung is not covered by the pleura. In a case in which this accident occurs the patient should be encouraged to cry out, and should not be allowed to make any voluntary expulsive movements.—*Bulletin de Thérapeutique*, October 30, 1883.

The Prophylactic Value of Turpentine Vapor in Infectious Diseases.—Dr. H. Vilandt writes in the *Ugeskrift for Laeger*, vol. viii., No. 8, 1883, concerning the value of oil of turpentine in the treatment and prophylaxis of diphtheria and the exanthematous diseases. He states that he has never seen any of these diseases spread from a sick child to the other members of the family when this remedy was employed. In many of his cases no isolation could be attempted, as the mother was the only female in the family and was obliged to take care of both the sick and the well, continually passing back and forth from one to the other. His method was to pour from twenty to forty drops of a mixture of equal parts of turpentine and carbolic acid into a kettle of water, which was kept simmering over a slow fire, so that the air of the sick-room was constantly impregnated with the odor of these two substances. He claims also that by this means a favorable influence is exerted upon the exudation in diphtheria, although it is by no means curative of the disease, and should never be relied upon to the exclusion of other remedies.

Some Forms of Cirrhosis of the Liver.—Hayem and Girandeau have recently published four cases of hypertrophic fatty cirrhosis, in which fatty surcharge of the hepatic parenchyma and sclerosis were associated. The sclerosis was diffuse, and of variable intensity. In one case it was markedly annular, and, contrary to what was found in a case published by Hanot, it had invaded the centre of the lobule. The hepatic parenchyma presented two noticeable lesions: fatty surcharge and pigmentary infiltration. There also existed very pronounced angiocholitis and periangiocholitis.

Guiter (*Thèse*, 1883), accepting and developing the ideas of Dieulafoy, proposes the title "mixed cirrhosis" for a particular variety of chronic hepatitis characterized by the association of lesions and symptoms proper to both atrophic and hypertrophic cirrhosis. The pathological anatomy of mixed cirrhosis, as one understands it, presents no especial macroscopic appearance, as the alterations found at the autopsy belong to all the forms of hepatic cirrhosis; an increased or diminished size, granular at the surface and on section, though less marked than in the confirmed period of cirrhosis as described by Laennec; enlarged spleen, and perihepatitis and splenitis. Pathologically this form is distinguished by the predominance of perilobular, intralobular, venous, biliary, parenchymatous, or interstitial sclerosis, and the symptoms dependent on these lesions. From a histological point of view the common and dominant character of this intermediate form is the extreme irregularity which characterizes the progress of the connective hyperplasia. It is a diffuse sclerosis, at the same time annular, perilobular and intralobular, interstitial and parenchymatous, with almost complete obliteration of the portal branches in some cases, with neo-formation of the smaller bile-ducts from a concomitant catarrhal angiocholitis. The simultaneous evolution of epithelial and parenchymatous sclerosis is the great characteristic of mixed sclerosis.

The clinical characteristics are more marked. The disease often begins suddenly by the appearance of ascites, soon followed by icterus, or these symptoms may be simultaneous in their appearance. This association of these symptoms is one of the principal characteristics of the disease. The size of the liver varies greatly, it being either diminished or increased. When the disease lasts a long time, atrophy succeeds hypertrophy. More often the course is rapid; periods of amelioration are exceptional, and the patients generally die within a period of a few days or two months after going to a hospital, either of cachexia or icterus; the rapid course being readily explained by the diffusion of the lesions, and the general invasion of the hepatic parenchyma and connective tissue.

Hutinel has encountered several cases, in tuberculous subjects, of cirrhotic lesions of the liver, as remarkable for their anatomical characteristics as for their clinical symptoms. There is a double lesion of the liver in these cases, connective-tissue hyperplasia having the type of hypertrophic cirrhosis, and fatty degeneration of the cells in the whole extent of the organ. The tubercular affection, which assumes a rapid course, and the hepatic affection, which presents the symptoms of a severe subacute icterus, are developed side by side. The principal symptoms, as stated by Hutinel, are: marked hepatalgia; hypertrophy of the liver, without irregularities, and a small amount of ascites and meteorism. The urine, which is rather below normal as to quantity, contains only 12 or 14 grammes of urea per diem, and is bilious or hæmaphæic. There is a marked tendency to hemorrhages—epistaxis, hæmoptysis. There are also nervous phenomena, as vague delirium with generalized hyperæsthesia. The patient dies comatose in two or three months. Hutinel believes that these patients generally become phthisical after an addiction to alcohol.

Hanot has admirably described four cases of atrophic cirrhosis of the liver, differing from the classic type by their rapid progress and certain symptomatic peculiarities. Their duration was from two to six months, with the accompaniment of a subacute febrile process. There were marked pains in the right hypochondrium, early ascites, with œdema of both upper and lower limbs, an icteric hue of the skin, and visceral and subcutaneous hemorrhages, with profound cachexia, progressive cerebral enfeeblement, coma, and lowered temperature; in other words, the state to which the name acholia has been given—and death. The explanation of this state may be found in the state of the hepatic cells, and we have here an illustration of the general law which may be thus formulated: In cirrhoses, from a pathological point of view, the diagnosis depends on the topography of the new connective-tissue formation; the prognosis, on the state of the hepatic cells. In the four cases reported by Hanot the hepatic cells were, for the most part, transformed into fat, such as is observed in acute yellow atrophy and phosphorus poisoning. It will be readily seen that the different symptoms find their interpretation in the pathological lesions.

Sevestre has reported a very interesting case of cirrhosis, with adenomatous nodules in the liver. The disease came on with digestive disturbances, and in a short time there was very marked ascites. The patient, a man forty-four years of age, was an alcoholic. The urine was small, reddish, and deposited a brick-dust sediment. The liver was found, at the autopsy, to be very large, with nodules on its surface; there were also large projections, white, and resembling cancerous nodules. On the under surface there were arborescent whitish tracts from one to two millimetres in diameter, produced by filling up of the veins; on incision into these a thick, whitish liquid was poured out. Section into the liver substance showed the same lesions; the portal vein and its branches in the hepatic substance being obliterated by adenomatous nodule. Histological examination showed a generalized cirrhotic state, with large numbers of small encysted tumors arising from the trabeculæ. The large adenomatous tubes formed cylinders partially limited by a layer of polymorphous cells. Three very similar cases

have been reported by Schüssler (*Stricker's Jahrbuch*, Hft. 2, 881.)

Pye Smith has reported a very remarkable case of cirrhotic liver in a boy of thirteen years of age, in which the lesions of advanced cirrhosis were found both in the liver and lungs, with ulceration of the large intestine. There was no reason to believe that the subject was alcoholic or syphilitic, and the duration of the disease four years precluded the idea of tuberculosis, although the intestinal ulcer was of a tuberculous nature. H. Moore believes this to be a particular variety of cirrhosis, the lesions being preceded by pleuritis and peritonitis—these being found in this case—the inflammation extending to Glisson's capsule and producing cirrhosis.

Extraction of a Foreign Body from the Tympanum, with Resection of the Tympanic Ring.—The following case is related in the *Norsk Magazin for Laegeridenskaben*, vol. xii., No. 11. A little girl, aged four, while playing on the sea-shore had a stone pushed into her ear by her sister. A few days later, upon the sister's confessing her trick, the mother attempted to dislodge the stone by means of a hair-pin, but not succeeding, she took the child to several physicians, one after the other, all of whom made repeated unsuccessful attempts to extract the foreign body. It was then, two and a half weeks after the accident, that the child was sent to the Rigshospital in the service of Dr. J. Nicolaysen. Examination showed numerous erosions in the external auditory canal, the outer two-thirds of which was swollen and ecchymotic, the inner third entirely denuded of skin and periosteum. The drum was gone, the tympanic ring bare, and the cavity of the tympanum filled up by the foreign body. The stone seemed to be wedged tightly in the anterior part of the cavity. There was some purulent secretion from the tympanum and meatus. The first efforts at extraction were unsuccessful, and the operation was put off till the following day to give time for the manufacture of some strong hooks. When these were procured they were slipped past the stone, but were broken off and their points left in the cavity of the ear. As the child had several times stopped breathing the chloroform was withheld and the operation again interrupted. The third attempt was successful. A very fine saw was introduced and two notches made in the tympanic ring, one directly forward and the other downward. Then the intervening section of bone, about one-fourth of an inch in length, was knocked off with a chisel. The stone was now readily extracted and with it the broken hooks and ossicles. The stone measured 8.75 mm. in length, 5.5 mm. in width, and 4.75 mm. in thickness. The well-meant efforts at extraction had succeeded only in wedging it in the tympanic orifice by its largest diameter, thereby destroying the drum and the ossicles.

Periodical Paralysis of the Motor Oculi Communis.—Dr. Hasner relates the case of a girl, aged seventeen years, who is attacked every month upon the appearance of the menses with a paralysis of the third nerve on the left side, lasting three days and disappearing with the subsidence of the menstrual flow. It accompanied the first manifestations of puberty and has appeared with perfect regularity at every menstrual epoch since that time. The patient also suffers at the same time from headache and vomiting. The first day there is complete paralysis with drooping of the upper eyelid, rotation of the eye outward and downward, dilatation of the pupil, paralysis of accommodation with unimpaired acuteness of vision, and slight exophthalmos. The second day the ptosis disappears, and on the third day the eye can be rotated inward. The dilatation of the pupil continues for several days and often persists for more than a week. There is nothing abnormal about the genital organs, the uterus is small and movable, the menstrual flow is rather scanty. This singular paralysis, the relator thinks, is due to some vaso-motor disturbance affecting the nucleus of origin of the left motor oculi nerve. Perhaps a similar affection of the nucleus of the pneumogastric would explain the attacks of vomiting that occur coincidently with the paralysis. The author raises the question whether this paralysis, now periodical and temporary, may not in the course of time become permanent.—*Archives Générales de Médecine*, December, 1883.

Ante-mortem Cæsarean Section.—A patient in the hospital for the insane at Brescia was taken ill during the eighth month of pregnancy with typhus fever. While she was in *articulo mortis* the fœtal heart-sounds were observed to grow feeble, and in the hope of saving the life of the child Cæsarean section was performed. The question was then propounded to several obstetricians of Italy whether such an operation were justifiable. This was the occasion of a paper read by Dr. Ottavio Morisani before the Accademia Medico-Chirurgica of Naples, and published in the *Rivista Clinica e Terapeutica* for November, 1883, in which he formulated the following conclusions: 1. If a woman die in the course of labor the extraction of the child should be completed per *viæ naturales*. 2. In the case of a woman dying at the end of the seventh month of pregnancy, an attempt should be made to deliver the child through the natural passages; but should great resistance be met with, recourse should at once be had to Cæsarean section unless there is a certainty that the fœtus is dead. 3. This operation is necessary when a pelvic deformity exists which would render delivery impossible or even very difficult. 4. It is in the interest of the child to perform the operation upon a moribund woman rather than to wait until death has actually occurred. 5. In a moribund woman at term, when labor has already begun, delivery should be completed through the natural passages. 6. In the case of a moribund woman at the end of the seventh month, it may be possible to provoke labor by the usual means, although once it has begun it should be completed by the forceps. 7. If the time be too short to allow of these preparatory measures, forced delivery should be at once practised. 8. When very great difficulty is experienced in forcing the hand into the uterus, or when it is judged that extraction through the natural passages would be prejudicial to the life of the fœtus, Cæsarean section should be performed, followed or not by removal of the uterus and ovaries, as seems best in the opinion of those present. The operation should be performed with the same precautions as would be observed were the woman in ordinary health. 9. The rules and precepts relating to forcible delivery should be observed in the interests of the mother not less than in those of the child.

Primary Union of Tissues Divided by the Thermo-cautery.—The following conclusions, based upon a large number of observations, are formulated by Dr. Reclus: 1. Tissues divided by the thermo-cautery may unite by first intention. 2. In order that this result may be obtained, the eschar formed by the cautery should not be very thick. 3. It is necessary to guard the wound against all septic infection. The occurrence of primary union is explained by the fact that the charred tissue is very light and is easily penetrated by the new vessels. The embryonal cells at either border insinuate themselves between the carbonized particles, meet and anastomose, and union takes place. The adoption of antiseptic precautions is, however, essential.—*Rivista Clinica e Terapeutica*, November, 1883.

Hereditary Polyuria.—Dr. Weil gives the genealogy of a family in which, out of ninety-one members, twenty-three had diabetes insipidus. There were no other hereditary diseases in the family, most of the members of which had attained an unusual old age. The ages of those affected ran all the way from two to seventy-six years. The symptoms were the ordinary ones of great thirst and increased excretion of urine.—*Deutsche Medicinische Wochenschrift*, No. 43, 1883.

PERITENDINOUS CELLULITIS OF THE TENDO ACHILLIS.—Dr. E. Raynal relates several cases of this troublesome affection in the *Archives Générales de Médecine* for December, 1883. The disease consists of an inflammation of the areolar tissue surrounding the tendo Achillis lying between the two layers of the fascia of the leg. These two layers are united at either side, forming a sheath in which the tendon plays, but which is unprovided with any synovial membrane to facilitate the movements of the tendon. The inflammation may be either acute or chronic, and the chronic form may commence as such without any previous acute stage. The subjective symptom is pain, varying in intensity according to the degree of inflammation. It occurs only on flexion of the foot, passive extension causing no inconvenience. When suppuration occurs the pain is usually very severe. The swelling is limited to the post-malleolar gutters on either side of the tendon, and never appears anterior to the joint. There is no redness of the skin as long as the inflammation is confined between the two layers of fascia. The local temperature is more or less elevated according to the degree of inflammation. The condition is to be distinguished from inflammation, sprain, and hydrarthrosis of the ankle-joint, as well as from subcutaneous cellulitis. The distinctive points are the localization of the swelling, absence of pain in extension of the foot, and absence of redness of the skin. The prognosis as regards a speedy cure is not favorable. Treatment consists in rest, at least in the early stages, local abstraction of blood, anodyne poultices, and inunction with mercurial or belladonna ointment. In the chronic stage, vesication, iodine, and light cauterization are of value. Care should be taken to avoid pressure over the tendo Achillis, and elastic gaiters especially should never be worn.

TRISMUS NASCENTIUM.—In a paper on this subject in *The American Journal of the Medical Sciences* for January, 1884, Dr. J. F. Hartigan supports the theory advanced by the late Dr. Marion Sims, that the symptoms are due to the effects of mechanical pressure on the brain by displacement of the occipital or parietal bones as the result generally of decubitus, and that they may be relieved simply by rectifying this abnormal displacement, often by change of position in lying alone.

STERILITY SUCCESSFULLY TREATED BY THE UTERINE BOUGIE.—Undoubtedly the most numerous cases of sterility are due either to a simple contraction of the cervical canal, or to such contraction complicated with one of the various flexions or versions of the uterus; and although treatment of the former by dilatation and the latter by pessaries has long been in vogue, patients and gynecologists have shared their disappointments innumerable. Convinced that pessaries in women who have not borne children frequently give rise to irritation or inflammation, thereby adding another impediment to conception, Dr. E. A. Spooner, in *The American Journal of the Medical Sciences* for January, 1884, states that he has long since abandoned their use in the treatment of these cases, employing such supports for patients requiring relief from prolapsus or other displacements without regard to the question of conception. Fortunately many cases of flexions or versions are amenable to the treatment of the uterine bougie, and when occurring as complications of a partial atresia of the cervical canal, the correction is readily made coincident with the dilatation, and he has been surprised at the ease with which long-existing and extreme flexions have yielded to treatment by bougies, which he describes in detail, and illustrates with the histories of several successful cases selected from his note-book.

THE ACTION OF TARTRATE OF CHINOLINE.—From a series of experimental investigations concerning the action of tartrate of chinoline, Dr. Sudeikin (*Vratch*) deduces the following: 1. Chinoline is one of the drugs which act tonically both on cold-blooded and warm-blooded animals. [Frogs die in two to three hours from two grains of chinoline, rabbits in about twenty-four hours from eight grains.] 2. It acts chiefly on the nerve-centres, and mainly on the spinal-cord and medulla oblongata (paralyzes the reflex activity). 3. It acts, also, on the respiratory centres (paralyzes them). 4. It paralyzes the excito-motor nerves of the heart. 5. It powerfully lowers the temperature of the body (*e. g.*, after the administration of twelve grains to a rabbit the temperature in two and a half hours fell from 38.3° C. to 32.9°, and in nine and a half hours to 29.2°).

GLOBULINURIA IN ACUTE BRIGHT'S DISEASE.—A case of acute nephritis is reported by Herr Werner, of Heidelberg, as occurring in Professor Dusch's clinic, which is probably unique. It was that of a child, aged five years and a half, who developed symptoms of the disease after exposure to wet, five days before his admission into hospital. There was only a little œdema of the eyelids, together with signs of diffuse bronchial catarrh on admission, but general dropsy rapidly supervened, and death occurred from suppression of urine five days afterward. What renders the case remarkable was that the urine only contained globulin, and never serum-albumen, although repeatedly examined, amongst others by Kühne. The characters of the urine were its high color, cloudiness, and moderate deposit, but no blood. Slight turbidity appeared on boiling with nitric acid, and also with acetic acid, clearing up on excess; and after supersaturation with magnesian sulphate no precipitate was obtained in the filtrate on the addition of nitric acid. Fatty epithelial and granular casts were found. The writer points out that hitherto globulin has never been met with in urine unless in company with serum-albumen; and quotes the statement of Senator to the effect that the quantity of globulin is most in the amyloid form of renal disease, next most abundant in acute nephritis, and least in the chronic diffuse form, although much albuminuria may be present. The same author also suggested that the globulin may be derived not only from the blood, but also from the morbid changes undergone by the renal epithelium, and Herr Werner thinks his case proves the possibility of its being solely derived from the latter source. He interprets his case, then, as one in which the renal epithelium was principally affected, which speedily and widely fell into a necrotic condition, as evidenced by the tube casts, and that this necrotic cell protoplasm was the source of the globulin. The idea is, to say the least, ingenious, and it is most unfortunate that no post-mortem examination was obtainable. It should be added that the child had previously been in good health, and had never had scarlet fever.—*London Lancet*, December 8, 1883.

THE ACTION OF INFUSED BEVERAGES ON PEPTIC INDIGESTION.—Dr. James Fraser (*Edin. Chir. and Path Jour.*, November 10, 1883) has undertaken a series of experiments to determine the effect of the ordinary infused beverages, tea, coffee, and cocoa, on the digestion of albumen. He finds that all retard digestion, except in four instances, viz., ham and white of egg with coffee, and fish with cocoatina and with cocoa. Salt meats are less retarded in digestion than fresh. The retardation is greatest with cocoa, less so with tea, and least with coffee. Tea causes flatulence. Cream and sugar reduce the retarding effect of tea, but increase that of cocoa. He recommends as a practical conclusion that albuminoids, especially fresh meat, should not be taken with infused beverages, and therefore condemns "meat-teas."

COLD DOUCHE IN INTESTINAL COLIC.—Dr. Tepliashin (*Vratch*) eulogises the pain-soothing effect of cold irrigations applied to the belly in cases of abdominal colic. The purpose is obtained by directing to the painful region a thin stream of cold water from a teapot lifted a foot or a foot and a half from the abdomen. The author saw rapid relief, even to the most excruciating pains, after the internal administration of opium and subcutaneous injections of morphia had failed.

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THE MICROBE OF PNEUMONIA.

IT was long ago suspected that pneumonia was not a purely local disease, consisting in a non-specific inflammation of a greater or less portion of one or both lungs. And even before the recent investigations concerning tuberculosis lent weight to the supposition that other diseases might also be of bacterial origin, there were not wanting authors who strongly inclined to a belief in the possibly infectious nature of pneumonia. Not long ago Friedländer, in a communication addressed to the Clinical Society of Berlin, described a micrococcus which he had found in the alveolar exudation of pneumonia, and quite recently Talamon presented to the Anatomical Society of Paris a *résumé* of his investigations on the same subject. The results obtained by the two observers mentioned were not altogether satisfactory, since the micrococci found by them do not seem to have been identical. Possibly, however, the different appearances presented may be due to the difference in their respective methods of examination. On the other hand, it is worthy of note that Talamon did not always find the same organism, nor were his inoculations invariably followed by pneumonia, pleurisy or other inflammations sometimes resulting. In view of these discrepancies he did not insist too strongly upon the infectious nature of pneumonia, nor yet upon its direct causal relation to a specific micro-organism.

The coccus which he found most frequently in pneumonia, which he was able to reproduce by cultivation, and which, moreover, when inoculated into healthy rabbits, seemed in many instances to be the immediate cause of a true pneumonia, he described as of an ellipsoid shape, tapering down to a thread at one end, thus resembling in general a grain of barley. Its size was variable, averaging in the pneumonic exudation about two micromillimetres in length, and one in width at its largest transverse diameter. When cultivated outside of the body, it occasionally attained a size of 3 or 4 micromillimetres in length, and 1½ to 2 in width. It was sometimes single, though generally he found two united in the form of a diplococcus. There were often chains of three or four of the ellipsoid bodies united end to end, and sometimes in the culture fluid he found eight or ten links, always preserving their barley-grain shape. All were perfectly motionless. They were deeply stained by methyl-aniline violet, but became thereby somewhat changed in outline, approaching more nearly a spherical shape.

In addition to this peculiar organism he often found zoogloea masses of round bodies, from the surface of which were becoming detached some of the ellipsoidal cocci. Friedländer had never found these zoogloea masses in the pneumonic exudation. Talamon obtained the exudative matter directly from the pulmonary tissue by means of a Pravaz syringe, thus avoiding any contamination with atmospherical bacteria. He was never successful in isolating the microbe in the sputa. He found it in the blood in a very few instances, and then only immediately before death.

Inoculations with the cultivated organism were followed by negative results in dogs, but in rabbits were uniformly productive of pneumonia, that is to say when the injections were made directly into the pulmonary tissues. But when the injections were practised under the skin of the thigh they were attended by no results, not even a local abscess being formed. The disease produced in the successful cases was a true lobar pneumonia, and not the form that is usually found in artificial septicæmia of rabbits. In a few instances the lungs were found healthy, but the pleura and pericardium were the seat of a fibrino-serous inflammation. In these cases it is supposable that the point of the syringe did not enter the lungs, and that the fluid escaped into the pleural cavity.

Finally, in two cases of pneumonia complicated with pleurisy and peri- and endocarditis, Talamon found an organism of different form, arranged in long chains of ten to twenty round bodies, very unlike the micrococci described above. It was reproduced in the same form by cultivation. It was found in the same individuals after death in the blood, the pericardium and the peritoneum, which was also the seat of a fibrinous inflammation. Inoculations with these organisms were followed by a pneumonia precisely similar to that consequent upon the injection of the other variety. Notwithstanding the unexplained discrepancies in the results hitherto obtained by investigators into the nature of pneumonia, M. Talamon felt justified in maintaining, with some reservations, that the disease is of an infectious nature, and caused by the multiplication within the lung of a specific microbe. He regards pneumonia, however, as a primarily local affection capable of generalization, and not as a general disease with local pulmonary determinations.

The investigations here alluded to will not definitely seal the fate of pneumonia to the extent of placing it irrevocably within the ranks of the bacterial infectious diseases. Nevertheless, it is to be admitted that the presumption in favor of so regarding it is considerably stronger with the positive evidence which these most recent investigations afford, than it ever could have been by merely reasoning from analogies and theoretical data. The present drift of experimental pathology is all in the direction of mycology, a field richer in promise than in accomplished harvest. It will not do, however, for pathology to cut loose entirely from clinical medicine. So with typical pneumonia, the natural history of which is clinically complete and perfect; we will have to know much more about its cocci before we can exchange our present opinion concerning its essential nature, for one that puts it in the same category with the specific inflammations of infectious origin.

THE NEW URINARY TESTS.

MEDICAL literature in the past six months has become very rich as regards the subject of urinary tests. There have been brought forward the following, as tests for albumen:

Picric acid, by Dr. George Johnson; acidulated brine, by Dr. Roberts; potassio-mercuric iodide, by Dr. Stephens; sodium tungstate, by Dr. Oliver; potassium ferrocyanide and citric acid, by Dr. Pavy; chloride of sodium and chloride of iron, by Dr. Halsam.

As new tests for sugar, we have had presented the diazobenzol-sulphuric acid test, by Pentzold; the picric acid test, by Dr. Johnson, and the indigo test by Dr. Geo. Oliver.

Certainly here are sufficient means to confuse the practitioner in his labors to discover the nephritic disturbances of his patients. So far as the tests for albumen go, however, we can say at once that none of them exceed in value, and scarcely in delicacy, the careful use of nitric acid and heat. Yet while this is true, we are inclined to think that some of the tests will prove useful because of their greater convenience and more striking reactions.

In testing urine for serum-albumin, there are a number of things which must be borne in mind. Urine contains, or may contain, a number of albuminous bodies besides serum-albumen, viz., peptone, parapeptone, globulin, paraglobulin, fibrin, and mucin. Having got an albuminous precipitate, therefore, by some reagent, it is still necessary to learn what form is present. Mucin can be, in large part, removed by filtration. Fibrin is rarely present except in chylous urine or in hæmaturia. Globulin and paraglobulin are probably never, or very rarely present, except when there is also serum-albumen. Peptone and parapeptone, however, do appear in the urine independently of other proteids. Their precipitate, however, can be readily distinguished by its dissolving with heat. Hence, although the problem of differentiating serum-albumen appears to be complex, it is practically not difficult.

The objections which have been raised to the heat and nitric acid test are those of inconvenience, lack of delicacy, and of the need of caution to avoid any source of error. If the urine be slightly acid or slightly alkaline, and but little albumen is present, heat will not cause a precipitate. If the urine be alkaline, heat may produce a cloud of earthy phosphates. Nitric acid, if added in very small amount, may change the albumen (if that is also in small amount) into syntonin, which is not thrown down by heat or acid, but only by neutralizing the fluid. Nitric acid may also throw down a cloud of urates. These dangers, which apply only to cases where there is little albumen present, can all be obviated by using Heller's method, viz., pouring the nitric acid into a test-tube, then letting the urine flow upon it, and carefully boiling, if there is a white zone produced.

Of the substitutes advanced for the above method, picric and citric acids, sodium tungstate and citric acid, and potassio-mercuric iodide have received the most approval.

To apply the picric acid test, the urine must be first slightly acidulated with citric acid, since if alkaline the picric solution might throw down urates. A saturated solution of picric acid is then added in amount, when a white cloud is formed, if serum-albumen or peptone be present. To exclude peptones the urine must be boiled. It will be seen that the application of this method is not so extremely simple as was at first claimed. It has also been shown that picric acid produces a precipitate when the patient has been taking quinine. It may yet be found that it will show the presence of other drugs in the urine.

Sodium tungstate is a very cheap substance and a cleaner one to use than picric acid. Oliver recommends equal parts of solutions of the sodium salt (1–4), citric acid (10–6) and water. This when added to the albuminous urine produces a cloudy precipitate.

It involves something of a refinement to say which of the above two is the more delicate. The potassio-mercuric-iodide test has no special advantage over others. Hassam's test consists in adding to the suspected urine several drops of a solution of chloride of sodium. Then a solution of chloride of iron (liq. ferri perchlorid.) is carefully poured down the test-tube, when if albumen is present a white ring will be seen. This ring, however, may be composed of phosphates, therefore a little citric acid must be added.

The test suggested by Pavy, of ferrocyanide of potassium and citric acid, is the common one for proteid bodies of all kinds, and is not suitable for distinguishing serum-albumen.

The introduction ot the tests thus enumerated will no doubt prove of value, since minute amounts of albumen can be detected with less scrupulous care. We cannot agree with Dr. Johnson, that the presence of albumen in such amount always indicates a serious pathological condition, and practitioners will err if, frightened by an unexpected precipitate, they treat patients at once as though there was an important lesion of the kidney.

We would say, in conclusion, that the picric acid test is likely to become the more popular, because the same reagent can be used as a test for sugar. It can be carried and used in the form of a powder. Citric acid should be carried with it either in the form of crystals or in that of citric acid papers, as suggested by Dr. Olliver.

ENGLISH MEDICAL JOURNALS.

THE English are the greatest printers and the best journalists in the world. The ability and skill which they show in their daily papers is evidenced also in medical journalism. In the purely journalistic and technical part of the work of editing and publishing medical periodicals, the profession of England is ahead of that of any other country. Nowhere else are there weekly journals of forty to sixty pages' length, more than half of which is perhaps the product of staff work. In the amount of editorial and reportorial work expended, America alone can compete with England. In these particular branches the former country is now pressing closely upon the latter.

A characteristic of English journalistic work is the literary skill displayed; the editorial writing is generally careful and often forcible, while the editors are remarkably apt in turning every-day events into "material," and in throwing a medical—not to say "bony"—light upon

them. We are obliged to say, that undoubtedly another not so admirable characteristic of English editorial work, is the union of a certain heaviness of style with triviality of subject, the result being a kind of medical *bathos*—which is the hypnotic quality in leading articles.

If as regards journalistic skill the English are ahead, this does not imply that medically or scientifically the same is the case. The English medical journals in respect to original and scientific work are far behind Germany, and hardly abreast of France. Along with frequent contributions of practical value, there is a vast deal of padding. Addresses which are diffuse and commonplace, hospital and society work which is without interest or suggestiveness, medico-parliamentary and sanitary reports fill up many pages in our most admirable contemporaries.

There is no such endemic of journalism in England as exists in Germany, France, and America. The few great London weeklies attempt to cover the whole range of medicine, making special journals almost unnecessary. There are quarterly journals devoted to mental and nervous diseases, and there is a journal of physiology. Ophthalmology is represented by a monthly; but so far as we are aware this ends the list of specialist's journals, even gynecology being without an organ. Dublin, Edinburgh, Glasgow, Birmingham, Bristol, Liverpool, each has its local monthly.

The strength of journalistic effort is, therefore, concentrated upon the weeklies, and even these can be counted upon the fingers.

The Lancet undoubtedly still retains its pre-eminence as the leading exponent of English medical journalism. No other journal apparently expends quite so much careful attention upon, or enlists so much ability in, its editorial work. *The Lancet* aims for position and influence with the general public as well as with the profession. It has undoubtedly helped to give dignity and force to medical opinion. We venture the criticism, however, that it goes too far at times in peddling out gratuitous sanitary instructions to the laity as regards every conceivable social custom or individual habit. *The Lancet*, perhaps, even more than its compeers, exhibits an extraordinary facility in discovering the medical significance of contemporaneous incidents, and can write profoundly and medically upon all things from the war in Egypt to the *accouchement* of a duchess.

The British Medical Journal is truly a wonderful periodical, and is constantly increasing its circulation. Its size is a little appalling, and there is a great deal in it regarding sanitation, medico-parliamentary and branch-meeting affairs, which are not very interesting outside of England. The *Journal* is doing an effective work in consolidating the medical profession and increasing its political influence.

The Medical Press and Circular, which we believe is published in Dublin as well as in London, though, somewhat smaller, is not inferior to the other weeklies in the editorial ability which it displays.

SUB-UMBILICAL PERITONITIS.

The peritoneum is often divided, for convenience of description, into two parts, a superior or supra-umbilical, and an inferior or sub-umbilical. An inflammation may be limited to one of these parts so that, as proposed by Beau, we may speak of a supra-umbilical or a sub-umbilical peritonitis. It is generally admitted that one of the chief sources of danger in a case of acute peritonitis is the extension of the inflammation to the superior portion of the membrane. It is then of some practical importance to differentiate between these two forms of localized peritonitis. In a paper on this subject in the *Archives Générales de Médecine* for December, 1883, Dr. Alphonse Goix summarizes his views as follows: Acute sub-umbilical peritonitis is manifested clinically: 1, by those general symptoms common to every attack of acute peritonitis; 2, by local phenomena pertaining to this form alone, viz., a superficial pain limited exactly to the lower half of the abdomen, retention of urine, and meteorism; 3, by a negative sign of very great importance, viz., a normal diaphragmatic respiration. Acute sub-umbilical peritonitis is distinguished from acute perityphlitis by the absence of tumefaction about the cæcum, and from sub-peritoneal inflammation by the preservation, during the entire course of the disease, of the mobility of the skin over the subjacent tissues. In this latter disease the subcutaneous connective tissues are always secondarily involved and the skin loses its mobility. Since, as already stated, the chief danger in peritonitis is in the extension of the inflammation to the supra-umbilical portion, it is always important to watch with care the respiratory rhythm and the diaphragmatic movements.

ARTIFICIAL CULTIVATION OF VACCINE VIRUS.

Dr. C. Quist, a physician of Helsingfors, Russia, announces, in the *St. Petersburger Medicinische Wochenschrift*, that he has discovered a method by which vaccine virus can be cultivated in the laboratory. His claim, if true, would render vaccine farms superfluous, since all our virus could be grown in a watch-glass. It will, therefore, be examined with much interest.

Dr. Quist, by cultivating the micrococci of the vaccine lymph found that they developed into bacilli, which in turn produced micrococci again. After many experiments he found that the two things necessary for growth were oxygen and a proper culture-fluid. The vaccine bacterium is, he says, "an exquisite ærobium." The best culture-fluid he found to be egg or serum albumen, to which is added glycerine (to prevent desiccation) and a little carbonate of lime. The following is one of the several formulæ which were used:

℞. Blood serum	.....	1 part.
Glycerine	.....	1 "
Aquæ destill.	.....	1 "
Calcii carbonat.	.....	$\frac{1}{100}$ "

This fluid is sterilized by keeping it at a temperature of 60° C. It is then spread upon a glass plate, a drop of vaccine lymph is mixed with it, and the whole is covered with a glass bell. The preparation is thus kept for a number of days. In six to ten days the surface is covered with the vaccine organisms. A little of this can be removed and inoculated with the result, according to Dr. Quist, of producing a perfect vaccine pustule. Our experimenter has found, also, that one inoculation of this cultivated virus produces immunity against a second. He

does not, however, yet give evidence to show that these inoculations prevent small-pox.

It appears from reading the account of Quist's experiments that they were carefully conducted. The obvious criticism, however, is that they may only show that vaccine lymph can be largely diluted and yet retain its potency.

ON DIRT AS "MATTER OUT OF PLACE."

THE physicist who tersely defined dirt as "matter out of place," showed that he was possessed of the insight of a moralist as well as philosopher. We assuredly know no apter designation for a certain class of advertisements which flaunt their nauseous shapes so valiantly in the columns of our religious contemporaries. We regret to say that our evangelical colleagues still parade before the eyes of the world their painfully practical exegesis of the text "He that is filthy, let him be filthy still." These brethren yet cling to a rôle which grates on the sensibilities of many of their readers, much as the conduct of the sporting clergyman, who rushed from the hounds to service with his surplice thrown hastily over his pink coat, must have wounded the *amour propre* of many a sharp-sighted parishioner. His muddy boots peeped from beneath his gown and his reeking hands smirched the good book as he turned the leaves.

Yes, we reverently and expectantly settle down in our pew as you enter the pulpit and a few premonitory qualms of our modicum of conscience play about our heart-strings. A sense of our own unworthiness begins to assert itself. The pinched features of the poor widow yonder in the corner makes our hand twitch in an unwonted way about our vest pocket. In short, a mood at once tender, restful, and forgiving; a kindly, earnest, thoughtful calm has come upon us unawares. "Dearly beloved," comes the plea of the minister, "Beware of the foxes, the little foxes, which gnaw the vines—" Hold on there! That graceful gesture brought to light a gleam of pink beneath the lawn sleeve. Upon my word, I see his foul boots. A fine one, you, to tell me to "beware of foxes." Unclean! unclean! *Vanitas vanitatum.* All is vanity, even the voice of the preacher.

Dear brethren of the religious press, do you not recognize the truth of the physicist's definition, and are you so deplorably color-blind that the character of the matter so wofully out of place in your paper creates the impression of spotless purity upon your moral retinas? Do you see no shameful incongruity in a teacher pointing with one hand to the straight and narrow path of godliness, and with the other to the haunts of those who display devices for eluding the wages of sin? In one column you lament the flood of pernicious literature which is debauching the innocence of youth; you lend your influence in the next to introduce in Christian homes a "specific for nervous prostration, spermatorrhœa, and alcoholism."

We have been led to allude to the subject of boots. You are probably familiar with the old adage about "the boot on the other leg." Just suppose you change your "rights and lefts" for a moment, and see if they pinch. It may help that defect in your vision, so we will extend our professional assistance.

You have probably not been called upon to review a little book, lately translated from the French, entitled, "The Life of Sarah Barnum, by Marie Columbier." There is such a book, however, as you may find on inquiry at any station of the Elevated road or at the bookstores. Plainly, it is a disgusting recital of the life of one dissolute woman from the pen of another. It is worse than dirt, it is filth, and report says has proved to be too highly spiced even for the prurient taste of the Parisian *monde.* The publishers have seen no incongruity in advertising a standard work on the inside pages of the cover. Here we find commendatory extracts (about the *standard* work) from various papers, among which is to be seen the names of several of our religious contemporaries which are noted for wide influence as well as wide advertising columns. Prominent among these is our old friend, the *Watchman*, who must find the cover of the "Life of Sarah Barnum" a disagreeable substitute for the walls of Zion.

Did we hear you speak, gentlemen? We are glad to see you lift you hands in righteous indignation and cover your faces from very shame. Yes, we agree with you that for those who love the honor of their high calling such a combination as the one mentioned must be painful in the extreme. Shame on those who would scatter dirty pages and think to excuse themselves by pointing to clean covers! Aye, brethren, and shame on those who scatter truth in dirty covers!

What did you say? *O tempora! O mores!* O—ouch! It pinches, does it? No wonder, the boot is on the other leg.

News of the Week.

A COLORIST IN BACILLI.—Another heated discussion recently occurred at the Academie de Médecine on the subject of the tubercle bacillus. M. Germain Sée charged M. Colin, who denied the specific character of the bacilli, with being ignorant of the technique of their study, and with having no clinical experience. "I may not be," replied Colin, "quite enough of a clinician to suit M. Germain Sée, but I am not, like him, a coloriste en bacilles." M. Colin claimed that the bacilli only accompanied the specific virus.

A "YANKEE," A "COCA-NUT," AND A "RED-SKIN."—Some time ago we wrote an editorial article upon French medical journals, in which we ventured to state some things that were, and some that were not, flattering to Gallic vanity. One of these journals, which by some extraordinary oversight we failed to mention as representative in character, viz., *Le Moniteur de la Politechnique*, has taken great offence, and in a two-column article brandishes the hatchet in a most amusing fashion. It calls THE MEDICAL RECORD "a coca-nut" and a "Yankee," and finally concludes by saying, "You are without education, without wit, without intelligence, in fine you are a 'red-skin!'" It is rather hard to be called a "coca-nut" and a "red-skin" all in one article; but we have always said that French medical editors were witty men, and so we can forgive our amiable contemporary *Le Moniteur*, etc., now.

MEDICAL REFORM IN OHIO.—In a series of vigorous editorials the *Columbus Medical Journal* is urging the cause of higher medical education. It urges the estab-

lishment of a State Medical Board of Examiners, and higher requirements as regards preliminary education. It also criticizes the new college in Toledo as not doing what its announcements claim.

MIXED EXAMINING BOARDS.—Our contemporary the *Boston Medical and Surgical Journal* nods its Homeric head. It announces that the New York County Medical Society (and there is only one such) has adopted a resolution urging the passage of a pending bill establishing a State Medical Board of Examiners composed of regulars, eclectics, and homœopaths. This action it impliedly asserts as being non-progressive. The County Society did not endorse this bill; but if it had, it would not have endorsed a new measure. The very active Illinois Health Board, which practically has the licensing power, and whose work our contemporary has, we believe, highly praised, is a mixed board. So also are the examining boards in several States where such organizations exist.

A BILL TO ESTABLISH A STATE BOARD OF HEALTH IN OHIO is again before the Legislature.

THE VETERINARY DEPARTMENT OF THE UNIVERSITY OF PENNSYLVANIA has been organized. The faculty consists chiefly of the professors in the medical department, Dr. R. D. Huidekoper being the only V.S. announced on the programme.

THE PHILADELPHIA CLINICAL SOCIETY is the title now taken by the Northern Medical Association of Philadelphia, which has recently reorganized. Dr. Henry Beates, Jr., is President; Dr. G. E. Richardson, Recording Secretary.

DR. JULIUS WISE has taken the place of Dr. D. C. Gamble, as St. Louis editor of the *Weekly Medical Review*.

ANOTHER ROYAL DOCTOR.—Another member of the royal family of Bavaria, Prince Ludwig Ferdinand, has been made a doctor of medicine, *honoris causa*. "Dr. Ferdinand" submitted to the Munich Faculty a thesis entitled "The Tongue: A Study in Comparative Anatomy," which is said to be a very fine piece of original work. A deputation, consisting of Professors v. Voit, Rüdinger, Kupffer, and Petenkofer, presented the Prince with his diploma.

MEDICAL INSTRUCTION TO WOMEN IN BOMBAY.—A set of rules regulating the mode in which medical instruction is to be imparted to women in local colleges, and setting forth the terms upon which females are to be admitted to medical degrees, has been published under the authority of the Bombay Government.

A POETICAL SUICIDE.—A German convict in Chicago committed suicide recently, and before doing so left a commemorative rhyme, which runs as follows:

> "Here's a recipe for a popular suicide:]
> Take twenty grains of potassium cyanide."

A fellow convict a few days later took the recipe, which was distributed freely among the prisoners. We cannot deny that it is a good one.

FEAR OF FEMALE STUDENTS IN RUSSIA.—All the female medical students in St. Petersburg—a class from which many redoubtable members of the Nihilist party have emanated—have just been compelled to take up their residence in a large boarding establishment, provided by the authorities, under the superintendence of Princess Shakafskoy, instead of being free, as heretofore, to live where they please. They are to pay ten rubles per month for board and lodging, and be at home before nine o'clock in the evening, under penalty of exclusion from the medical course.

ADVERTISING THROUGH THE MEDIUM OF MEDICAL COLLEGES.—The St. Louis Medical Society has adopted the following resolutions: "Whereas, advertising by physicians is not considered respectable, and is strictly forbidden by the Code of the American Medical Association; whereas, medical schools and colleges have from time immemorial arrogated to themselves the right not only to advertise the schools and colleges, but also the names of every individual connected with them, the chairs which they fill, and even their residences, etc.; whereas, a wrong in an individual cannot possibly be a right in an association; therefore, resolved, 1, that the professors and lecturers in medical schools and colleges are requested to refrain from letting their names appear in the circulars, prospectuses, and cards; 2, that the American Medical Association be respectfully petitioned to deny representation to all medical colleges which parade the names of the professors in their circulars and act contrary to the spirit of this rule."

We recall a story current in this city of a leading college professor, and defender of the National Code, who had been lending his name, with its collegiate appendages, to a prominent mineral-water firm. He received a call from a censor, who showed him the advertisement and made a protest. The censor was simply requested to leave the office and attend to his own business. This he did, for the professor was a great man. Certain less powerful men, however, were disciplined without any trouble.

BICHLORIDE AS AN ANTISEPTIC.—The item "Bichloride as an Antiseptic," on page 167 of the issue of THE MEDICAL RECORD for February 9, 1884, is incorrect in stating that the "combination was first suggested by C. Amend, a chemist, of this city." It was proposed by Mr. Chas. *Am Ende*, chemist, of Hoboken, N. J.

HEMORRHAGE IN THE PONS.—Dr. Brandt, of Brooklyn, writes: "Be kind enough to recognize in next MEDICAL RECORD the *typographical error* on page 167, in my reply to Dr. Lyman's article on 'Apoplexy' (MEDICAL RECORD of February 9, 1884). In the third line from bottom of page it should read '*pontine*' (hemorrhage in pons Varolii) and not 'positive' as it reads now. The full force of the criticism is lost as it now stands."

A BILL TO RESTORE THE QUARANTINE POWERS OF THE NATIONAL BOARD OF HEALTH has been introduced into the House by Mr. Young, of Tennessee. The *Sanitary Engineer* says of it: On comparing it with the Quarantine Act of 1879, which expired by limitation last year, and which this bill is intended to replace, we find that the present bill omits all penalties, and requires nothing in particular of vessels coming to this country from infected ports. The Board is to aid State and Municipal Boards in the execution of their rules—*i.e.*, they are to be conciliated by saying to them, "Do whatever you

like, only let us have the privilege of paying some of your inspectors," etc. This arrangement ought to secure the Southern vote, but we fear it will not conciliate Dr. Joseph Jones, of the New Orleans Board, nor will it meet the approval of the Treasury Department. It would seem that the Board is either satisfied with its present organization and relations to other departments of the Government, or thinks it not worth while to attempt to make any change. In either case the prospect does not appear to us to be very satisfactory.

A MODEST PROPOSITION.—The State Homœopathic Society, at its meeting in Albany last week, adopted a memorial to the Legislature expressing its disapproval of all medical bills now pending, and favoring the appointment of a Board of Examiners, composed of three regulars, three homœopathists, and three eclectics.

DISCUSSION ON CONCUSSION OF THE SPINE.—The New York Medico-Legal Society, after three trials, got a sufficient number of persons together last week to discuss a paper by Dr. J. G. Johnston, of Brooklyn, on "Concussion of the Spine in Railway Injuries," read last December.

DR. CHARLES M. FORD, a prominent physician of Washington, died on February 15th, at his residence on Capitol Hill. Dr. Ford was about forty-three years of age, and was a native of New York. He studied his profession in Philadelphia, and after being graduated, entered the Union Army as a surgeon attached to a New York regiment.

A BEQUEST BY THE LATE DR. BEVERLY LIVINGSTON.—The late Dr. Beverly Livingston, of this city, a graduate of the Yale Sheffield Scientific School in 1874, requested before his death, last year, that his scientific collections and certain other property should be given to the school. His wishes have just been carried out by his father, and the institution has been enriched by a large number of microscopic slides and other physiological specimens, and its permanent fund has been increased by $3,000. This is the first legacy received by the Scientific School from one of its graduates.

THE TRICHINOSIS QUESTION IN FRANCE.—The commission appointed to investigate the epidemic of trichinosis at Emersleben, consisting of MM. Graucher and Brouardel, made a report to the Academie de Medecin, in which they stated that the epidemic in question was of German origin, and not due to imported American pork. They stated also that the gravity of the disease diminished in proportion as the pork was mixed with other food and in proportion to the time that the meat had been preserved after the killing of the animal.

PHYSICIANS' MUTUAL AID ASSOCIATION.—The annual report of this organization shows that it is in a prosperous condition. "The benevolent feature of the Association is its chief recommendation. The permanent fund now exceeds the constitutional limit required to make its interest available for charitable objects. From this income the widows and orphans of a deceased member may be aided, and any worthy member assisted, as has already been done in several instances." The above is a quotation from the report and is well calculated to encourage a practical sympathy and support of the society by medical men.

Reviews and Notices.

THE EVOLUTION OF MORBID GERMS: A CONTRIBUTION TO TRANSCENDENTAL PATHOLOGY. By KENNETH W. MILLICAN, B.A. Cantab., M.R.C.S., Fellow of the Medical Society of London. London: H. K. Lewis. 1883.

THIS is a scholarly and well-handled essay, in which the doctrines of evolution are most ingeniously and cleverly applied to substantiate and explain the germ theory of disease. It is forcible and suggestive throughout, and whether one agrees personally with the author's conclusions or not, we all must be impressed that here is a careful and accurate observer, whose views must command respect if not conviction, and whose method of investigation in a particularly abstruse but rich vein of thought must gain the generous sympathy and approval of the profession at large. Mr. Millican's compact monograph is a most valuable contribution to our current literature from this very fact, for it is by just such conscientious work medical science receives its vital impetus. It is by no means unlikely that our author's labor has brought him to the threshold of one of nature's most subtle and stupendous secrets, fraught with an importance to humanity which our present limited knowledge can but imperfectly appreciate.

ASIATIC CHOLERA. Being a Report on an Outbreak of Epidemic Cholera in 1876 at a Camp near Murree in India. By CHARLES MOORE JESSOP, M.R.C.P., Associate of King's College, London; Brigade Surgeon, H.M.S. British Forces. London: H.K. Lewis. 1883.

THE outbreak of cholera here reported occurred shortly after the establishment of a cholera convalescent camp, sixteen hundred yards distant from the one at Murree. Aside from the fact that the whole subject has of late acquired new interest, an intelligent and authoritative *résumé* of a typical outbreak of the disease must always be suggestive and command attention. Few points have escaped Dr. Jessop's careful investigation, and he has given us a straightforward, eminently business-like report. The reader recognizes the military mind, not only in the simplicity and accurateness of the "war-map" diagrams, but in the promptness, exactness, and method with which each point is taken up and discussed.

The author speaks very favorably of the use of the hypodermic injection of chloral as "the most beneficial method of bringing the stage of collapse to an end by staying the cramp symptoms. He lays particular stress on posture as an auxiliary in the treatment, *i.e.*, the patient's head must be kept high and his feet low; in other words, the position is one of semi-reclination. Accordingly he advocates a reclining-chair in place of the bed. The rationale of this last is essentially the same as that of a change of posture in the treatment of ordinary pulmonary congestion, and Dr. Jessop considers it of the highest importance.

NOTE-BOOK ON POST-MORTEM EXAMINATIONS. By BYROM BRAMWELL, M.D., F.R.C.P., Pathologist to the Royal Infirmary, Edinburgh, etc., etc. Edinburgh: Maclachlan Stewart. 1883.

THIS note-book is presented by the author with the view of facilitating the complete and systematic method of performing and recording post-mortem examinations. It will be found to be not only an excellent assistant to students attending the post-mortem, but in hospital service its value is apparent as well as in private practice, especially in medico-legal cases. The order adopted in making the examinations is, for the most part, that recommended by Virchow. The book contains headings for fifteen complete and twenty-three incomplete examinations, for twelve cases in which the examination is limited to the cavities of the thorax and abdomen, fol-

lowed by headings for seven cases where the cavities of the thorax, abdomen, and cranium respectively are examined. An index is also provided.

A Treatise on the Diseases of the Nervous System. By James Ross, M.D., Fellow of the Royal College of Physicians, London. Second edition, 2 vols. New York: William Wood & Co. 1883.

In these two sumptuous volumes, it may truly be said that Dr. Ross has included not only all the essential facts connected with the morphology of the brain and spinal cord, but also a host of data bearing upon the essential anatomy and physiology of the subject.

The work is copiously illustrated by a large number of excellent cuts, which serve to fix the prominent clinical and pathological features in the mind of the reader, thus adding plasticity and clearness to his conceptions of the entire subject.

The anatomical and physiological introduction, which precedes the section of the work devoted to diseases of the medulla and spinal cord, is especially worthy of commendation, on account of the clearness, comprehensiveness, and thoroughness with which this intricate chapter in neuro-physiology is treated. And the same may be said of the section on cerebral anatomy and physiology.

In many works on diseases of the brain or cord, this portion of the subject has been handled with so little dexterity, that the practical physician, being unable to penetrate the maze of ambiguity, has involuntarily conceived a positive aversion for neurological science.

Dr. Ross, on the contrary, deserves to be congratulated upon the success with which he not only conceives, but also conveys ideas, even upon themes apparently involved in a high degree of complexity.

Having thoroughly perused these preliminary chapters, the professional reader will encounter little else but pleasure during the remainder of his literary journey. Cerebral localization, the different forms of systematized and compound system—diseases of the medulla oblongata and spinal cord, are now easily understood; and the physician finds that he has penetrated into the apparently impenetrable fastnesses of clinical neurology, almost before he is aware that he has crossed the threshold of scientific inquest.

To this, the second edition of his able work on the "Diseases of the Nervous System," Dr. Ross has added a large number of historical references, besides amplifying and re-writing many of the chapters. It is hardly necessary to add that this thorough revision has greatly conduced to the value of the work, and it may safely be predicted that these two volumes are destined to maintain a permanent place in neurological literature.

A copious and carefully prepared index serves to render every portion of the work immediately accessible.

We can cordially recommend this work, not only to the specialist, but to all members of the profession who are desirous of becoming familiar with a department of medicine the importance of which it is hardly possible to overestimate.

The International Encyclopædia of Surgery. Edited by John Ashhurst, Jr., M.D., Professor of Clinical Surgery in the University of Pennsylvania. In six volumes. Volume IV. New York: W. Wood & Co. 1884.

The fourth volume of this great surgical work is now before us, and we are pleased to find that it worthily maintains the high standard of excellence attained by its predecessors. Of the plates which accompany this volume it is but fair to say, that those illustrating the minute structure of tumors are masterpieces in their way, reflecting high credit upon Dr. Butlin, who furnished the drawings, as well as the publishers who had them reproduced.

The authors of the various articles are all Englishmen or Americans, so that we may speak of an Anglo-American, instead of an international volume. However, the English reader will not be disposed to find fault with the editor on this account, since it is always more pleasant to read an author, even if his subject is purely medical, in the original, than in the most perfect translation possible.

Injuries of bones are ably discussed in the first article, which is written by Dr. Packard, of Philadelphia. It is a painstaking chapter, admirably systematized, so that the subject of any special fracture can be quickly found. Richard Barwell contributes an excellent treatise on the various diseases of the joints. Synovitis, anchylosis, the different neuroses, and articular tumors, are successively considered in the clear, forcible, and practical manner so characteristic of this well-known author.

In the article which follows, the subject of excisions and resections, both from a general point of view and as regards special topographical details, is thoroughly discussed. It is from the pen of the editor, and leaves no room for adverse criticism. Exactly why Dr. Fenwick, of Montreal, is given room for a separate chapter on excision of the knee-joint is hardly apparent, since his particular method of operating is sufficiently known, and hardly deserves the prominence thus accorded to it.

Dr. Butlin has been selected to write the article on tumors. This essay is interesting and instructive, more as regards the pathology of neoplasms, which is elaborately explained, than with reference to operative surgery. Nevertheless, as his surgical principles are sound, we are not disposed to quarrel with the author for being an excellent pathologist. We are unacquainted with a work on surgery where the intricate subject of new-growths is dealt with in a more satisfactory and strictly scientific manner. The late lamented Dr. Lidell is the author of a posthumous contribution on injuries of the back. It is a profound and elaborate article, the study of which fills the mind with deep sorrow that its gifted author should have died even before the completion of the great work to which he rendered such efficient service.

The concluding article of the present volume is on malformations and diseases of the spine. Frederick Treves, of London, is the author of this important part of the work. It is well that he has no pet notions to foist upon the profession, but displays everywhere a just appreciation of what is of value, and what useless or reprehensible, in the manifold methods that have been put forward by over-zealous partisans of particular modes of treatment. Concerning Sayre's method of treating Pott's disease, he feels sure that, when properly and carefully restricted to selected cases, it holds out the best chance of cure or improvement. Its indiscriminate employment he strongly and very justly condemns.

The Dissector's Manual. By W. B. Clarke, F.R.C.S., and C. B. Lockwood, F.R.C.S. 12mo, pp. 384. Philadelphia: H. C. Lea's Son & Co. 1883.

This is a handy pocket-volume for the student. It contains forty-nine illustrations, all but two of which are stated as original. Some of them are only slightly modified, however, from cuts that are already familiar to the reviewer. As a whole they are well executed, and, though scanty in number, are an addition to the volume. Diagrammatic illustrations are rapidly becoming popular, because the student can comprehend them. The authors of this volume seem to appreciate this fact. Some of the diagrams are happily designed.

As regards the text, accuracy and brevity are combined. All manuals of this kind can be made useful if not abused. They cannot fill the place of such works as those of Quain, Sappey, Henle, and others, but they are valuable adjuncts if used in connection with them. The few errors of statement and typography which exist in this volume will doubtless be eliminated in a subsequent edition. The type is clear and the volume is tastefully issued.

Reports of Societies.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, January 23, 1884.

GEORGE F. SHRADY, M.D., PRESIDENT, IN THE CHAIR.

(Continued from p. 196.)

DR. FRANK FERGUSON presented specimens illustrating

PERICARDITIS, LOBAR PNEUMONIA, AND PLEURISY,

occurring in a male, twenty-five years of age, married, a native of the United States, and a sailor by occupation. He was taken sick on December 27, 1883, and on January 4, 1884, was brought in an ambulance to the House of Relief in Chambers Street. He said he used stimulants freely; although conscious, he was not able to give a clear history of his illness. On admission he was well nourished, the entire surface of the body was covered with an erythematous blush, which disappeared on pressure. His temperature was 102° F.; his pulse 108 beats to the minute, and his respiration 44; the physical signs of bronchitis over the entire chest were present, also evidence of extensive pleurisy on the left side, and consolidation of the left lung in the axillary line. The elevation of temperature, his weak, rapid pulse, and frequent respiration continued until death. During the last four days of his illness he was delirious, the delirium, toward the last, alternating with stupor. There were no friction-sounds heard over the precordial area, but the pericardium was known to be distended with fluid. Patient died of heart failure, in a comatose condition, January 20, 1884. At autopsy the following lesions were found:

The *heart* was normal in size; the *pericardium* was distended with purulent fluid and covered with a thick layer of recent fibrin. The muscular structure of the heart was normal, and its valves were competent.

The *left lung* over its lower lobe was covered by recent lymph, beneath which the pulmonary tissue contained very little air; felt tough and leathery. The upper lobe was congested and œdematous.

The *right lung* was congested and œdematous.

The *spleen* was large, soft, and easily torn. The *liver* and *kidneys* were swollen and granular; the *brain* was congested.

Dr. Ferguson also presented specimens illustrating

CYSTITIS—PYELITIS—CHRONIC DIFFUSE NEPHRITIS—OLD INJURIES OF THE RIGHT LEG,

occurring in a male, fifty-nine years of age, a native of Belgium, and a teacher by profession. Twenty years ago he sustained injuries to his right knee and ankle, the nature of which he was unable to describe, nor was he able to give any idea of his treatment at that time. He said he fell, and was at the time in Paris. He was received and treated in the House of Relief, since the 5th of the present month, for contusions of the lower part of the abdomen and scrotum, and laceration of the urethra in the perineum. These injuries he received while profoundly intoxicated, and he did not realize his condition until the next day. Several incisions were made in the scrotum, and the operation of perineal section was performed at a point opposite the rupture in the urethra.

The following day he had a slight chill, and his temperature was at 100° F., and his pulse 100. While all the incisions made in the scrotum and perineum did apparently well, he gradually failed, became delirious, and died two weeks after the operation.

On post-mortem examination there were extensive hemorrhages into the lower third abdominal recti muscles, into the tissues of the scrotum and of the perineum. The bladder was hypertrophied, and its mucous membrane was intensely congested. The left ureter and the left renal artery were very small; the pelvis of the left kidney was much dilated and congested. The kidney was almost completely atrophied. The right kidney was very large, its pelvis was dilated, its ureter was large; the mucous membrane of both the ureter and pelvis of the kidney was markedly congested. There were numerous small abscesses in the cortex of the right kidney, and the organ presented the lesion of chronic diffuse nephritis.

The *heart* was markedly hypertrophied, its valves were competent, and there were patches of atheroma in the anterior segment of the mitral valve and ascending portion of the arch of the aorta.

The *lungs* were congested and œdematous. There was considerable atrophy of the convolutions of the *brain*.

The *liver* contained slight excess of fibrous tissue and fat, the fat deposited at the periphery of the lobules. The peripheral vessels were atheromatous, and the vessels of the kidneys presented the lesion of endarteritis obliterans.

DILATATION OF THE STOMACH.

DR. J. C. PETERS presented a dilated stomach, removed from the body of a patient whose clinical history he related at the stated meeting held December 26, 1883 (see MEDICAL RECORD, vol. xxv., p. 77). The stomach was dilated to four or five times its normal size, and Dr. Peters remarked that, during life, no apparent effect was produced by medicines administered by the mouth. The immediate cause of death seemed to be pneumonia. The autopsy and microscopical examination was made by Dr. Ferguson, who furnished the following report:

The stomach is very much dilated, its muscular walls hypertrophied, and its mucous membrane is partially digested. There is a stricture at the pylorus which admits a cylinder a quarter of an inch in diameter. The tissues around the pyloric orifice are much thickened. There is an area of thickening in the wall of the duodenum, just below the pylorus, lenticular in shape and about one inch in diameter and one-half an inch in thickness, composed of smooth muscle and fibrous tissue. The tissues surrounding the pylorus are largely fibrous, but in some places narrow bands of smooth muscles are seen. The pneumonia is of the croupous variety. The nodules seen in the organs were miliary tubercles, but of these there were only a few, and on the surface of the liver and kidneys; none were found in the interior of the organs.

CARCINOMA OF THE PYLORIC EXTREMITY OF THE STOMACH.

DR. BEVERLEY ROBINSON presented a specimen, accompanied by the following history, furnished by Dr. William H. Sherman, junior assistant physician at St. Luke's Hospital:

William H. A——, twenty-nine years of age, single, a native of the United States, and a gas-pipe fitter by trade, was admitted January 7, 1884. He gave no history of hereditary disease. The patient began to suffer two years ago with distress after eating, and some pain in the abdomen and chest. For the last year his bowels had moved only when medicines were given, and vomiting also had been frequent and persistent. He was jaundiced for a time one year ago; had never vomited blood. On admission the patient complained of continuous vomiting and obstinate constipation. He had pain in the epigastric region and beneath the sternum, which was relieved by vomiting. He was much emaciated. A tumor was felt in the epigastric region, about two inches in width. It was movable, and changed its location from time to time, but always remaining in the epigastric region. The liver seemed to be somewhat enlarged. While in the hospital only a small quantity of milk was allowed by the mouth, the patient being nourished by the rectum. Stimulants and anti-emetics were administered.

The patient's strength failed rapidly. The vomiting continued, the matter vomited being a brownish fluid,

exceeding in quantity that of the liquid taken by the mouth. The fluid vomited apparently contained blood (crystals of hæmoglobin were found on microscopic examination). The tumor was still perceptible on January 12th. Death occurred on January 17th.

Post-mortem examination.—The stomach in the median line extended down to the umbilicus. The transverse colon was situated about two inches below the umbilicus. The mucous membrane and muscular coat of the stomach were moderately thickened, and the mucous membrane was congested. The stomach was enormously dilated, measuring from the cardiac end to the pylorus about nine and a half inches. The pylorus was situated under the liver in the axillary line, at a point corresponding to the tenth intercostal space. There was a growth occupying the wall of the stomach at the pylorus, half an inch in thickness and one inch in length, occupying this portion of wall symmetrically. Through the pylorus a No. 15 (French) sound passed, tightly grasped by the new growth.

The microscopical examination resulted as follows:

Carcinoma of the pylorus.—This firm ring is microscopically composed of a fibrous stroma, limiting alveoli of various sizes, some of which are filled with small cuboidal cells, others are lined with similar cells and appear like tubes embedded in the stroma. The stroma is abundant, and in sections narrow bundles and isolated cells of smooth muscle are seen in places.

Remarks.—One of the interesting points in this case is the fact that, prior to the patient's entrance into St. Luke's, it is stated that the epigastric tumor could not be discovered. For this reason a distinguished surgeon of our city had declined to open the abdominal cavity and resect the stomach, although it was presumable that carcinoma of the pyloric orifice existed.

At the autopsy it was remarked that the pylorus was hidden under the liver in such manner that it could not be felt by external palpation. It was doubted, therefore, by the previous attendant physician of the patient whether I had really been able to feel the carcinomatous mass during life. I feel confident, however, that I did feel the tumor repeatedly, and will add that the observation of this case proves to me that, 1, a tumor of the stomach felt during life may be out of reach after death; 2, that even during life it may not be felt during quite a period and then suddenly may manifest itself.

The conclusion of this is, that in suspected carcinoma of the stomach repeated physical examinations at short intervals should be made before we are prepared to affirm that no tumor really is present.

As there is no ulceration of the mucous membrane at the pylorus, it is not unusual that hemorrhage during life did not occur. The man's age is not advanced for the existence of a carcinomatous growth.

Dr. John A. Wyeth presented a specimen of

OSTEO-LIPOMA,

removed from the radius of a woman fifty years of age. The growth involved the radius one inch from the carpal articulation, and the interesting feature was that it seemed to be an exostosis from the apex of which two small nodules of lipoma sprang. He regarded the combination of osteoma and lipoma as a rare occurrence.

The President suggested that the combination was accidental.

Dr. Wyeth thought that probably it was so.

Dr. Peabody regarded the explanation by accidental relation as undoubtedly the correct one.

The Society then went into executive session.

Pasteur on Vivisection.—M. Pasteur's words upon this subject are: "Never should I have the courage to kill a bird for sport, but when it comes to experiments I have never been troubled by the slightest scruple. Science in that case has the right of pleading the sovereignty of the purpose."

THE PRACTITIONERS' SOCIETY OF NEW YORK.

Stated Meeting, January 5, 1884.

Dr. Beverley Robinson, President, *pro tem.*, in the Chair.

Dr. Henry F. Walker read the paper of the evening, entitled,

CERTAIN MATTERS OF TREATMENT WHICH SHOULD BELONG TO THE LYING-IN ROOM.

[The paper is published in full on p. 201 of The Record.]

The paper being open for discussion, Dr. Wm. T. Lusk said that he could agree with Dr. Walker as regards the importance of the first two points that had been made, viz., the immediate care of the perineum and the use of pessaries in convalescence. As regards the last, he was in doubt. He had had his attention drawn to the subject recently. Two infants soon after birth had suffered greatly from frequent urination. This was an unusual thing. Upon examination he found that the nurses, in the discharge of their supposed duty, had been pulling back the foreskin over the glans, and had thus produced much irritation. Preputial rest being enjoined, the urinary trouble ceased.

Dr. James B. Hunter said that he had not used

PESSARIES DURING CONVALESCENCE.

The plan, however, commended itself to his judgment. In sewing up the perineum he used silk or catgut, instead of silver-wire. As regards circumcision, the speaker referred to his experience in a case where a Jew performed the operation, it being his sole business; he had operated more than twenty thousand times. He said that he usually found preputial adhesions in infants, but that they were not generally very strong.

Dr. A. B. Ball said that according to Dr. Walker

FOUR-FIFTHS OF INFANTS NEEDED SOME SURGICAL PROCEDURE,

which seemed to be too large a proportion. He approved of circumcision, but thought that the majority of boys grew up all right.

Dr. Walker had not looked at it quite in that way, but he knew that very many children did require some operation.

Dr. Bull said that it ought to be borne in mind that the operation is not entirely devoid of danger. He saw last winter a child who died from septicæmia as the result of the operation. He believed that Dr. Sands had a similar result in the case of one of the students of the College of Physicians and Surgeons.

Dr. Lusk had followed a great many of these cases from infancy on and had found, as a rule, that the adhesions entirely disappeared.

Dr. Cleveland discussed the propriety of

SLITTING THE UNDER SIDE OF THE PREPUCE,

a little to one side of the frænum, instead of slitting the upper side, as is usual. He knew of one physician in very large practice who always operated in this way, and with very good result. Dr. Cleveland thoroughly believed in the operation and he thought that Dr. Walker was only a little in advance of the times. While visiting physician to Charity Hospital in the venereal service, he had a number of Jews under treatment, but he never had seen any of them with chancres or chancroids. He believed that circumcision would eventually be adopted as a sanitary measure.

Dr. F. P. Kinnicutt had had an experience very much like Dr. Walker's. That is, he had found preputial adhesions in most cases. But he had also observed that in many cases these disappeared later on. He had also found that in many instances the adhesions could be broken up with a probe.

Dr. Bangs said that the agglutination of the prepuce to the glans was a normal condition in the newly-born. In one class of cases these adhesions can be easily separated; in the other some operation, either slitting or circumcision, is required. He had no doubt that many children suffered from lack of attention to the foreskin. On the other hand, the speaker instanced cases showing how the organ may be injured by careless operations. As to the Jews, Dr. Bangs thought that they were freer from chancroidal disease than other races, but not from gonorrhœa or syphilis.

Dr. A. A. Smith said that in the first years of his practice he had been in the habit of following the plan recommended by Dr. Walker, and had circumcised infants freely. Of late, however, he had nearly abandoned the practice; and found that by making occasional examinations of the penis, breaking adhesions if necessary, the patients got along just as well.

Dr. C. L. Dana showed a

NEW FORM OF PORTABLE FARADIC BATTERY.

It consisted essentially of a small portable faradic coil with appliances, which was run by a portable Bergmann & Haid open-circuit cell.

[A full description will be given, with illustration, in a future issue of The Record.]

Dr. Beverley Robinson showed an

INSTRUMENT FOR TAPPING THE PERICARDIUM,

the main feature of which was a device by which, without admitting air, the trocar could be withdrawn and a blunt canula inserted in its place.

Correspondence.

OUR PARIS LETTER.

DIABETES MELLITUS—SUICIDES IN PARIS—THE AMERICAN HOG IN PARIS—SCAVENGING THE STREETS OF PARIS.

Paris, January 30, 1884.

Professor Bouchardat has just brought out the second edition of his work on "Glycosuria, or, Diabetes Mellitus," a subject to which he has devoted his attention for nearly half a century. This memoir is the most complete work on the subject of which it treats, and is the result of long experience and personal observations which he published in various periodicals, but more especially in his *Annuaire de Thérapeutique*, his first note having appeared in the *Revue Médicale* in 1838. To this second edition Professor Bouchardat has added an important chapter on glyco-polyuria, a condition characterized by an excessive flow of urine with a moderate quantity of sugar in it, which, however, persists in the blood and is accompanied by an excess of lithic acid. This latter association is, according to the author, the origin of the most terrible complications that could occur in a diabetic subject who has passed his fiftieth year, such as cataract, carbuncle, gangrene, softening of the brain, etc.

In studying the etiology of glycosuria, and setting aside all theory, the author determined experimentally the influence of the principal articles of diet on the elimination of sugar by the urine, which, he states, may in certain cases, exceed five hundred grammes in the twenty-four hours. He discovered that bread, the other farinaceous substances, and sugar were the chief elements that gave rise to the production of this extraordinary quantity of sugar in the urine. This fact contributed a good deal to a more rational system of therapeutics in the treatment of this affection, which M. Bouchardat divides into dietetic and hygienic; but he insists more particularly on the latter form, as although the restriction to a certain kind of diet (absence of glycogenetic substances) is generally attended with important results, as manifested by the disappearance of sugar in the urine, this circumstance is, generally speaking, delusive, as the diminution of the amount of sugar in the urine may be only temporary, and a diabetic patient cannot be considered cured unless he can resume his former habits and live like other people, without being subject to relapses. But the form of hygienic treatment to which the learned professor attaches most importance is bodily exercise, particularly of the arms, which should be accomplished by manual work or by gymnastics, or other athletic exercises. To this, of course, must be added temperance in all things, which should be seconded by maintaining the proper functions of the skin by the use of flannel clothing, warm baths, hydrotherapy, dry rubbing, massage, etc.

In The Record of the 5th instant you published the list of suicides that occurred in New York during the past year. It may be interesting to give the result of the official report from the statistical office attached to the Prefecture of Police in Paris by way of comparison. The report shows that in the Department of the Seine there were 542 suicides, or attempts at suicide, from January 1 to December 31, 1883. The report of the preceding year gave a total of 479, thus showing an increase of 63 over that of last year. By a singular coincidence, firearms were most frequently resorted to, for, of the total for the year, there were 217 suicides by this method, of which there were 156 for Paris, and 61 for the rest of the department. There were 148 cases by drowning, 84 by hanging, and 137 by asphyxia. The other cases were accomplished by falls from high places or out of windows of apartments, also by being crushed or by poisoning. Among those who resorted to firearms there were 41 females. The report adds that it was in the year 1873 that the greatest number of suicides had been committed in the Department of the Seine, there having been 687 for that year. During the same year there were 1,421 suicides reported in London, and in 1882 there were 1,107. The report for 1883 for the latter city has not yet been published.

A propos of suicides, I may here note that Dr. Paul Moreau, of Tours, in his article in the new "Dictionary of Practical Medicine and Surgery," which is being published in Paris, entitled "Suicide," makes the following remarks: "Of all mental affections suicide is the most eminently transmissible by contagion, imitation, etc.," facts he had already brought to notice in his inaugural thesis in 1875, and which he comprised under the head of epidemic suicide. Dr. Moreau referred to another point not less important and melancholy, the tendency to suicide in early childhood, which is already manifested in the first years of life, the symptoms of which may be recognized, and should be taken into account independent of heredity.

After the American hog, the chiffonniers are creating a great sensation in Paris. You will have seen what prevarication there has been on the part of the French Government respecting the importation of American pork, for, although it was amply demonstrated by Drs. Brouardel and Grancher that trichinosis never existed in France, and that even if it did, it could not be imputed to American or any other pork, as the French never use this article of food without subjecting it to a thorough process of cooking, which has been proved to be sufficient to destroy the trichinæ, the opinion of these eminent authorities has been called into question and overruled by M. Paul Bert at the Chamber of Deputies, where he obtained the suspension of the decree permitting the importation of American pork in this country.

The decree by the Prefect of the Seine, regulating the scavenging of the streets of Paris, being prejudicial to the interests of the chiffonniers or rag-pickers, without in any way improving the system so many years in vogue, demonstration meetings are held to protest against the decree, which the parties aggrieved condemn as gratuitous and uncalled for, as it has been shown that, far from being a

nuisance to the public, this interesting class of laborers render signal service toward the sanitation of the city. And from being a simple question of the corporation, it assumed one of general social interest, and now, like all questions of a public character in this country, it has degenerated into a political squabble from which the authorities find it difficult to extricate themselves. A proposition has been made at the Municipal Council of Paris, anent the chiffonniers, that the decree affecting them should be simply cancelled.

At a meeting of the Professors of the Paris Faculty of Medicine, last week, it was decided to present as candidates for the chair of obstetrics at the School of Medicine, Drs. Tarnier, Gueniot, and Charpentier, in the room of Professor Pajot, promoted to the chair of clinical obstetrics. The general opinion is in favor of Dr. Tarnier, whose standing in the profession and his other qualities would point to him as having the best claim.

THE NON-NECESSITY OF STRICT ANTISEPTIC MEASURES IN GENERAL OBSTETRIC PRACTICE.

To the Editor of The Medical Record.

Sir: In a recent editorial in The Record reviewing the question of the "Prevention and Treatment of Puerperal Fever," this question is asked: "Shall the general practitioner everywhere religiously obey the instructions given, for instance by Dr. T. G. Thomas in his prophylactic measures?"

In the several papers and discussions that have appeared in your pages the subject has been viewed from the standpoint of those who are obstetricians engaged in city practice, and chiefly viewing the subject from experience gained in hospital life. These gentlemen, however, have not confined their recommendations to those thus engaged, but, as teachers, have addressed wider audiences than merely were in attendance on the meetings of the various societies where these papers were read. But every general practitioner must decide this matter for himself, guided by the lamp of his own experience, or of that of those similarly situated with himself.

For some years the opinion has gained ground that puerperal fever is due to puerperal infection, which infection is either auto-infection or infection from the contact of infected articles, etc., and is identical with the septicæmia or infection that arises among those who are suffering with surgical injuries, and consequently we would expect to find it prevalent in the same localities and under the same conditions as we find the surgical disease. But in healthy towns and country localities the latter disease is not common, and in some localities is rare, and we are justified in coming to the same conclusion as to the latter. Wounds of all kinds in these favored localities heal without the necessity for the strict antiseptic measures required in hospitals and the vitiated atmosphere of crowded urban life; and we find the same condition of affairs in obstetrical practice. And, indeed, we think it would be adding needless anxiety to the real dangers and fears of maternity to insist that every parturient woman should undergo all the preparations, precautions, and procedures which are used in capital operations; and a harsh judgment to charge the physician not adopting such measures, "with a laxity of caution closely bordering upon criminality."

In a very large proportion of cases in general practice the patients could not, if they would, carry out such suggestions, for their home surroundings would not admit of it.

In a very large number of cases the attendant is not informed as to when his services will be needed, his advice is not sought until labor commences, and his attendance is limited to the time occupied by labor, and a day or so succeeding; then, if the patient is doing well, his visits cease. Certainly this is the case in country districts.

In a large majority of cases the dwellings of these patients are not commodious enough to admit of having a room especially prepared for the lying-in; among our poorer patients we are glad to have a bedroom not common to more than the parents themselves. Again, in a vast number of cases there is no nurse engaged, the means of the parties would not admit of it. Some female friend or relation serves in that capacity. In my own practice I have too often been glad to have ordinary cleanliness, as differing from the usual filth of their premises, and this is no exception to the experience of others. Such are some of the objections I have to such teachings that they require precautions which are impracticable in a very large proportion of cases.

The next question is: Are they necessary? This is to be decided by the results of practice, and I here offer my mite of experience. In a record of nearly six hundred cases of labor, covering a period of fifteen years in general practice, I find that three patients suffered from conditions which can be classed as puerperal fever or inflammation. Of these one was a case of puerperal peritonitis—in a primipara—which proved fatal on the sixth day; she was forty-eight hours in labor, and was delivered with forceps. One was a case of pelvic cellulitis, which had its origin, I think, in some prior chronic inflammatory condition. One was a case of metritis, in a pluripara, after a short and easy labor. In several more there were febrile attacks occurring during the lying-in, which continued for from one to three days, then defervescence. I did not think these cases belonged to this class. During the same period I have seen three other cases in consultation or attendance which were attended by other physicians or midwives. One was a case of puerperal peritonitis. This patient contracted gonorrhœa from her husband a short time before her confinement; one was a case of pelvic inflammation after delivery; the third was a case of metritis, developing in the sixth day after confinement. This record, I think, confirms what Dr. Thomas says as to the rarity of septicæmia in country and village communities, *i.e.*, that in many of these localities it is entirely unknown. We do not have the atmospheric and telluric conditions favorable to the development of this particular septic germ. In our parturient women we have the lacerations and contusions of the cervix, the same conditions at the placental site, the same injuries of the membrane of the vagina, and the same lacerations of the perineum. We oftentimes have retained portions of placenta and membranes and clots, our patients undergo serious operative interference in difficult and tedious labors, but we do not have the active principle which is to cause trouble in these favoring local conditions. Hence we do not find it necessary to treat our patients as if they had undergone capital operations or as if the genital canal were a punctured wound. On the contrary, we let nature and rest do the necessary work, rendering aid when aid is necessary.

But we are further told that in all cases of difficult labor, and in those in which instruments have been employed, vaginal disinfecting injections should be administered every fourth hour, and kept up for at least ten days. In these six hundred cases the forceps were used twenty-nine times, podalic version four times, cephalic version once, in one case was it necessary to incise the cervix with the bistoury on account of rigidity, and in a number of cases placenta was removed by introduction of hand into uterus. In only one of these cases was there any trouble following, *i.e.*, in a case of forceps delivery, before mentioned, which died of puerperal peritonitis. To show how cases recover without unfavorable symptoms, I relate the following case: A multipara was attended by a midwife in labor during afternoon; it proved to be a case of twins. The first child was delivered without difficulty; the second was a shoulder presentation with protrusion of arm and prolapse of cord. Violent pains wedged the body deep

in the pelvis. The services of a physician, eleven miles distant, were sought, but he did not reach the house till 2 A.M.; he desired assistance, and I was summoned, reaching patient about 11 A.M. of next day. The child being dead, I amputated arm at shoulder, and then turned child and delivered by feet. Perfect uterine contraction was secured and kept up by repeated doses of ergot, rest by morphia, and full doses of whiskey and quinine given during next twenty-four hours. Vaginal disinfecting injections were advised, but no syringe was at hand. It was not necessary for the physician to see her but once, and she made a rapid and complete recovery. Owing to the distance it was impossible to give closer attention. Sometimes we are called upon to deliver placentas, in cases where the midwife is unable to deliver it, many hours after birth of the child, and as yet I have seen no bad results, nor were any steps taken to prevent them, except occasionally to order a daily vaginal injection of warm water, and indeed this advice is not always followed. During the past three years the use of carbolized vaginal injections have been ordered where the circumstances would admit of it, and the labor been protracted and difficult. In two of these cases, notwithstanding these measures, there were febrile attacks lasting from twenty-four to thirty-six hours, one on the fourth the other on the ninth day. There was no local cause for it.

Again, it is recommended that the practitioner shall take care "that all clothing be free from exposure to the effluvia of septic infection, such as typhus, erysipelas, scarlet fever, septicæmia, and if he has been exposed, should change all clothing and the body be thoroughly sponged with a solution of boracic acid." While agreeing in the main with all this, still the experience of most general practitioners in country practice proves that it is unnecessary. The thorough airing of the clothing by exposure to the fresh air while riding from house to house, the frequent bathing of the hands and cleaning of the nails, as should be done for the cleanliness of polite usage, is all that is needed. It is all that the writer has found necessary during these years of practice, when scarlet fever was prevailing as an epidemic, while attending cases of erysipelas, diphtheria, and cases of injury where there was much suppuration.

From the experiences related above we feel justified in drawing the following conclusions: That the attendant should see that his hands and instruments are thoroughly clean, for which purpose plenty of soap and water, and free use of the nail-brush will suffice, except when he has been handling objects from which it would be expected that infection should arise; then the use of disinfectants becomes necessary. That the first stage of labor should not be hastened by rupture of the membranes until the os uteri is fully dilatable; and the second stage be not unduly protracted, but shortened by the judicious use of the forceps—the placental membranes and clots fully expelled by securing perfect uterine contraction by manipulation and ergot, and then rest from annoying after-pains by full doses of morphia.

There should be complete rest during the lying-in, so as to secure perfect uterine involution, and the healing of all the slighter lacerations and contusions which may have occurred.

In cases where more extensive lacerations of the cervix and perineum have taken place, proper operative procedures should be instituted at the proper time. The nurses and attendants should be taught the necessity of cleanliness, and the securing of that as far as circumstances will admit. By following such a course it will not be necessary for the general practitioner to treat his puerperal patients as if they were about to undergo, or had undergone, some serious capital operation, or had had the genital canal turned into a "punctured wound;" nor to deliver them under the antiseptic spray, as I have seen credited to Fancourt Barnes, nor again to close up the vulva with antiseptic dressing to prevent the sucking in of septic germs, nor to inject the vagina repeatedly to prevent auto-infection, and use iodoform, etc., to hasten the healing process; but to treat labor and the condition following as a physiological process, where nature, with favorable conditions of cleanliness, rest, and time, is equal to her work.

W. H. SHARP, M.D.

VOLCANO, W. VA.

"THE ADVICE GRATIS SYSTEM."

TO THE EDITOR OF THE MEDICAL RECORD.

SIR: Dr. J. West Roosevelt has discussed this question in THE MEDICAL RECORD for February 2d, in a very able manner, considering the subject from many points of view, and yet has not been able to deduce any practical solution for the remedying of the admitted defects of the system. Will Dr. Roosevelt pardon me if I suggest that his inability may possibly be due to the fact that he is living in a "glass house," and, of course, cannot with ordinary consistency "throw stones"? I have no doubt but that the main remedy that I have to offer for the bettering of the evil state of affairs so forcibly appreciated by Dr. Roosevelt will meet with his personal and decided disapproval. The recipe that I would earnestly suggest as a true physical antagonist for this pauperizing poison that is so freely vended in our city, is *that every free hospital or out-door patient, should* EARN *his or her professional treatment and medical supplies by a self-surrender of themselves as illustrative subjects for purposes of clinical instruction.* It should be made known to every patient who seeks medical or surgical public aid, that he can, and must if called on, thus render an equivalent, of more or less value, for the aid he receives. Every person with a particle of *true* pride would most willingly offer this service in return for what he receives, and those who have it not should be taught their social duties in this respect at least.

There is an immense wealth of clinical material continually lost to medical science in this city that should be utilized in the instruction of the medical students, both under- and post-graduate, who throng our schools. The very first step that I should recommend to Dr. Roosevelt, as a means of reform in this respect, is the immediate abolishment of the Out-door Department of Roosevelt Hospital, or else the establishment, in connection with it and the hospital, of a clinical school of medicine. The city is overrun with a surplus of dispensaries, and the very physicians who really promote and support them for the sake of "the experience and certain prominence" they gain, are largely responsible for the bad state of affairs. The majority of patients who apply to these dispensaries for relief are partly or quite able to help themselves. My perception as to this matter has lately had a stimulus. It is my fortune to be connected with the chest class at the Bellevue Out Department, in the capacity of an humble assistant. The people who apply at this city dispensary are presumably as miserably indigent as any class in the city. Their appearance would indicate the most abject poverty. These patients receive gratis, at each visit, from one to three compounded prescriptions. It so happened that in December the cod-liver oil gave out, and the supply could not be replenished until the New Year. I explained the facts to each patient who had been receiving the oil, and urged the necessity of their taking the oil if they could afford to buy it. To my utter surprise *every* patient informed me that they could thus get the oil. Comment is superfluous. Now, while there are an excessive number of dispensaries that thus give aid, and at the same time help to make beggars of an immense number of people, the medical schools have great difficulty in getting together suitable classes for purposes of clinical instruction. They almost have to fight among themselves for the material. Undignified advertisements have to be placarded in the streets to draw in the people. Every out-door dispensary in the city that is not in connection

with a school for medical instruction *should be closed.* Every hospital in the city should have attached to it a medical school. There are too many licensing powers, but there are not too many schools. Medical schools should have small classes of students, and large classes of clinical material. Such a state of affairs would mean less money for each school, but more learning in medical practitioners. It would also keep away from the dispensaries multitudes who can well afford to retain a physician. Of course I do not advocate too many medical schools. The clinical material should be kept in large classes.

There is no excuse that could be really considered valid for the maintenance of the Roosevelt Out-door Department. The New York Hospital Out-door Department is a particularly vicious institution. It deprives many a poor doctor of many a badly wanted fee, and is only of great professional value to its attendant medical staff. The city dispensaries are the most pernicious of all. They should be closed, and the money they cost the city should be equally distributed to the dispensaries in connection with the medical schools. I am informed that the managers of Demilt Dispensary are exceedingly *difficult* in connection with this matter, sometimes medical instruction being allowed there, but more often it is not allowed. In viewing the subject from the patients' point of view, it may be added with justice that they have some rights that should receive due consideration. It is too often the case that clinical instructors use the patients with absolute brutality. They are often stripped so long as to become chilled, and in many other ways are neglected and badly used. If a medical man undertakes to treat a charity patient, he should give him *honest* and *thorough* treatment; and this duty should be all the more imperative if he has used the patient for instructive purposes. It is a great satisfaction to know that many of our instructors are thus considerate. It was my pleasure, some weeks ago, to be present at a clinical lecture given by a distinguished clinical teacher. I was particularly impressed with the delicacy and consideration with which the patients were treated. There was privacy in unclothing them. There was a high stool for the weakly patient to sit on. There was a shawl to cover him in the intervals of instruction, and the room was kept so warm that there was no danger of his catching cold, though it was uncomfortably warm for the other occupants of the room. Here, then, is one step at least that, though difficult of putting into practice, may be made a "means of sifting the undeserving from among the applicants for relief." Let the patient either pay an outside doctor in cash, or the clinical instructor, and in this way society at large, in a service costing time and a reasonable amount of discomfort. Furthermore, a slight charge, proportional to the ability of the patient, should be made for medicines. Even a few cents paid by a patient will preserve self-respect, and very few of the dispensary patients are absolutely penniless. The unlimited dispensing of free medicines at the city dispensaries interferes very greatly with the carrying out of this policy in institutions where it is nominally adopted. Every dispensary should have a conspicuously located contribution box, and *every* patient should be emphatically made to feel, by all justifiable means, that a reasonable contribution in proportion to ability would be expected at each visit. A very slight deprivation of beer, tobacco, etc., would furnish the vast majority of the poorest patients with the necessary small coin to drop in the box.

J. M. W. KITCHEN, M.D.

168 WEST FIFTY-EIGHTH STREET,
February 4, 1884.

AN INFANT THAT SECRETES MILK.—Dr. Lesnewich reports, in the *Paris Médical*, the case of a male infant, aged ten months, that secretes milk in considerable amount. The infant has, for its size, well developed mammary glands.

Army and Navy News.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from February 10, 1884, *to February* 16, 1884.

PERIN, GLOVER, Lieutenant-Colonel and Surgeon, Medical Director, is granted one month's leave of absence, with permission to apply at Division Headquarters, Missouri, for an extension of one month. S. O. 16, Department of Dakota, February 9, 1884.

To be Assistant Surgeons, with the rank of First Lieutenant, to date December 3, 1883: William D. Dietz, Walter W. A. Fisher, William Stephenson, Adrian S. Polhemus, John L. Phillips, Reuben L. Robertson, William C. Borden, Edgar A. Mearns, Guy L. Edie, William D. Crosby, William L. Kneadler, Charles M. Gandy, Charles S. Black, James E. Pilcher, Alonzo A. Chapin. S. O., A. G. O., Washington, February 11, 1884.

BREWSTER, WILLIAM B., First Lieutenant and Assistant Surgeon. Resignation accepted, to date February 7, 1884. S. O., A. G. O., Washington, February 11, 1884.

WILSON, GEORGE F., First Lieutenant and Assistant Surgeon. Assigned to duty at Fort Walla Walla, W. T. S. O. 14, Department of the Columbia, February 5, 1884.

Official List of Changes in the Medical Corps of the Navy, for the week ending February 16, 1884.

COUES, S. F., Medical Director, to the Naval Medical Examining Board, Philadelphia, March 3d, as the relief of Medical Director P. J. Horwitz, who retires on that date.

Medical Items.

CONTAGIOUS DISEASES—WEEKLY STATEMENT.—Report of cases and deaths from contagious diseases reported to the Sanitary Bureau, Health Department, for the week ending February 16, 1884:

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever
Cases.								
February 9, 1884.....	1	7	89	15	55	37	0	0
February 16, 1884.....	1	16	68	6	83	53	0	0
Deaths.								
February 9, 1884.....	0	1	16	10	10	18	0	0
February 16, 1884.....	0	7	11	7	8	20	0	0

HOT WATER INJECTIONS TO ARREST UTERINE HEMORRHAGE.—Dr. Frederic S. Sellew, writing concerning an article on the above subject in a recent number of THE MEDICAL RECORD, says: "At that time I was treating a very obstinate case of menorrhagia, and failing to arrest the hemorrhage by the usual means, I resorted to the use of the injections of hot water per rectum, with very gratifying results. Mrs. C——, aged forty-eight, married. Two children. She began to menstruate at the age of twelve, and since that time the menstrual periods have been irregular and frequent; the intervals varying from two to three weeks. The loss of blood at each menstrual epoch has been large and continuing for several days. During the last two years the intervals have been growing longer, varying from two to five months. Last March (1883), after an interval of three months, I was called; found her bleeding freely, very weak and restless. She informed me that she had been unwell for ten days, the hemorrhage increasing from day to day. A careful

examination gave no evidence of the existence of vegetations within the uterine cavity. I began the usual course of treatment—ergot, astringents, vaginal douche, etc.—with very unsatisfactory results, the improvement following the use of any of these remedies being only temporary. The only remedy which seemed to exert any permanent influence was opium, and under its use there was a gradual improvement, until the hemorrhage finally stopped altogether and did not return again until the following September, six months later, and again in December. At these times the loss of blood was slight. In January, 1884, I was again called; found her bleeding profusely. She had been unwell for a week, growing worse from day to day. As before, the usual remedies made no impression upon the flow of blood. I then directed that a large enema of hot water be given and retained as long as possible. The bleeding stopped at once and did not return until the following day, when after a sudden fright it recommenced. The enema was again given and repeated in about twenty minutes, after which the bleeding stopped and has not returned."

The Prognosis in Cases of Post-mortem Wounds.—Dr. W. Thornton Parker, of Morristown, N. J., writes: "The medical journals of this country and Europe have reported during the past year several deaths in the medical profession from post-mortem wounds. Some of these deaths have occurred very soon after the receipt of the injury, others have weakened the system of the victim for years, until some ordinary disease has found him in a state to be easily overcome. I have in mind at present two or three medical men who are suffering constitutionally from post-mortem wounds received several years ago. In looking up the matter in our text-books on surgery, I find too little of information concerning this subject. I supposed that it was generally admitted that the post-mortem wound was injurious to health to such an extent that the virus having once sharply attacked the system, it would be well-nigh impossible to eradicate it. I am well aware that many post-mortem wounds are received, and that little, if any, disturbance seems to have been created by them; but I hold that the system can be, and undoubtedly often is, *seriously impaired for life*, the natural forces weakened, and the nervous system affected. Hamilton gives this matter very careful consideration, but omits the prognosis in such cases, and so do most of the writers to whose works I have access. The needle seems to be recognized as probably the most dangerous implement inflicting this dreadful wound. My object in sending you this communication is to ask for information from the medical profession on this subject, especially concerning *prognosis*. During the past week, in conversation with a medical man of high standing, and a man well read in surgery, he informed me that after *fifteen years* he considered the poison to be so thoroughly eliminated from the system of any one receiving such a wound as to be practically non-existent; and, furthermore, he held that our bodies change so rapidly and continuously that little of the body of fifteen years ago remains to-day. . . . Early in 1882 this matter received considerable attention in the columns of the *British Medical Journal*, and one case, at least, was reported where the post-mortem *warts* had persisted for fifteen years! (See *British Medical Journal*, February 10, 1883.) If the warts can persist that length of time, the poison can continue its injurious effects as long, and even longer, in my opinion, and as I have reason to suppose, in the opinion of most medical men. I shall be grateful for practical information on this subject, and for reference to works or papers which sustain either view of the prognosis mentioned."

The Climate of Newport.—At a regular meeting of the Newport Medical Society, held February 5th, at which twelve members were present, it was resolved: That the Newport Medical Society endorses the opinion advanced by Dr. H. R. Storer, that the winter climate of Newport is preferable to that of the rest of New England for certain forms of pulmonary diseases, and for general invalids, provided that when here the patients are under proper hygienic conditions as regards location, etc.

Sculptors' Clay for Electrodes is recommended by G. Apostoli in the *Bulletin Général de Thérapeutique*.

Morphine against Sea-sickness.—In a letter to the *Bulletin Général de Thérapeutique*, Dr. Pietra Santa calls attention to the value of morphine in sea-sickness, as recommended in 1881 by Baron de Thérésopolis. It is given hypodermically, and followed by a purgative. A few injections, sometimes one, will suffice.

Scenes in Pasteur's Laboratory.—The following somewhat gruesome description of M. Pasteur's laboratory, is taken from a recently published volume entitled, "L'Histoire d'un Savant par un Ignorant:" "All the animals in the laboratory, from the little white mice hiding under a bundle of cotton wool to the dogs barking furiously from behind their iron-railed kennels, are doomed to death. These inhabitants of the laboratory, which are marched out day after day in order to be subjected to operations or other experiments, share the space with still more ghastly objects. From all parts of France hampers arrive containing fowls which have died of cholera or some other disease. Here is an enormous basket bound with straw; it contains the body of a pig which has died of fever. A fragment of lung, forwarded in a tin box, is from a cow dying of pneumonia. Other goods are still more precious. Since M. Pasteur, two years ago, went to Pauillac to await the arrival of a boat which brought yellow fever patients, he receives now and then from far-off countries a bottle of *vomito negro*. Tubes filled with blood are lying about, and small plates containing drops of blood may be seen everywhere on the work-tables. In special stores bottle-like bladders are ranged resembling small liquor bottles. The prick of a pin into one of these bladders would bring death to any man. Inclosed in glass prisons millions and millions of microbes live and multiply."

Combination of Skin and Sponge-grafting.—Dr. Fred. B. Robinson, of Grand Rapids, Wis., sends us the following instructive history: "M. B——, a healthy girl, aged six years, became severely burned on the nates, vulva, and both thighs. In all about one hundred and eighty square inches of skin were burned off. The shock was very severe. The urinary secretion was suppressed for two days, but was finally restored. Exudation from the surface was profuse and exhausting. Dressing was required three times a day for some time. Flour, oils, etc., were employed to exclude the atmosphere from the raw surface, but under all medicaments the child waned from extensive suppuration. It became a question of active treatment or death. A combination of skin- and sponge-grafting was resorted to. Pasteboard boxes were applied so as to keep all material, cloths, etc., from the burned parts, as all bandages caused excessive suppuration by irritation. The burned surfaces were made as bare and free as possible. Fine sponges were soaked in alcohol and carbolic acid (200 to 20 parts) for thirty-six hours. Thin layers were cut from the outside of the sponge, and these were applied on the burned surface. The thickness of the sponge-layers best adapted is about that of blotting-paper, so that the granulations can grow up in the meshes of the sponge, absorbing it as they grow. The sponge- and skin-grafting was done from the edge of the denuded surface. Every three weeks I clipped some forty skin-grafts from my arm or leg, and applied them to the surface and covered them with the layers of prepared sponges. After this application suppuration would be partially suppressed, followed by a rise of temperature for a few subsequent days. Whenever the child lost weight the healing was stationary. Under this method healing was marvellous. The granu-

lations would spring up between the meshes of the sponges, and the skin-grafts furnished new base-points of skin growth. Newly formed skin would soon extend beyond the application, leaving some of the thicker nodules of the sponges unabsorbed. No bandages were placed on the sponges, as the parts were at rest and fairly quiet. The subnitrate of bismuth was sprinkled on the burned surface, which very much diminished suppuration and odor, and kindly promoted healing. The wounds are almost healed at writing. I think such combination will be found a useful method in healing extensively skin-denuded surfaces and ulcers."

A Remarkable Dwarf.—Dr. A. Ten Eyck sends us an account of a dwarf living near his residence, in De Freestville, N. Y. It would very much interest Barnum. The person in question is a young lady, aged eighteen years, who measures only twenty-seven inches in height. She is well proportioned except the head, which is rather large, has lost her teeth, and has never menstruated. Her intelligence is small, she cannot speak. She can stand, but cannot walk. Her general health is good.

Mortality Statistics for 1883.—*Small-pox.*—In 1883 there were only 12 deaths, against 260 in 1882. This shows good work in vaccination and disinfection by physicians and the Board of Health. The usual mortality is fifty per cent. of the confluent cases; eight per cent. of the semi-confluent; and four per cent. of the distinct, or discrete forms.

Measles.—In 1883 there were 716 deaths, against 913 in 1882. This also shows reasonably good work in disinfection by physicians and the authorities. Under favorable circumstances the mortality from measles does not reach one per cent.; and it is safe to say that some physicians in long and good general practice have never seen a death from it. In hospitals, asylums, barracks, and overcrowded tenement-houses it is often a very serious disease. Cachectic, scrofulous, anæmic, and badly fed and clothed children are the principal victims. In these the mortality may vary from four to fifty per cent.

Scarlet fever.—There were only 743 deaths in 1883, against 2,066 in 1882. This again shows good sanitary work on the part of physicians and inspectors, aided perhaps by favorable weather and general cleanliness of the city. Still, scarlet fever is apt to prevail for several years and then almost die down, perhaps for want of susceptible subjects, possibly from some peculiarity of the weather. Mild winters, when better ventilation can be secured, possibly stop its progress. Although contagion is the prime cause, weather has some influence on its spread. Of 56,000 deaths in London, in twenty-four years, eighteen per cent. were in the spring; twenty-three per cent. in the summer, thirty-five per cent. in the fall, and twenty-four per cent. in the winter. November is often the most fatal month, unless the weather is mild: of 3,000 deaths, 400 took place in November, 330 in December, 200 in January, 140 in February, 157 in March, 167 in April, 177 in May, 213 in June, 282 in July, 257 in August, 327 in October. Hence contagion prevails at all times, and most in the fall of the year. Sometimes the difference between the fall and spring months is as great as thirty-five per cent. in the former and as low as eighteen per cent. in the latter.

Diphtheria.—There were only 909 deaths in 1883, against 1,525 in 1882. The mortality varies from 1 in 10 to 1 in 3. Of 80 fatal cases, 60 will arise from laryngeal troubles, and 20 from exhaustion. Although it may prevail in all places it is most common in low, damp, swampy, and marshy towns, or parts of towns with bad drainage and where foul exhalations are most common. The influence of contagion is well established, and the lower mortality last year may be attributed in part to sanitary improvements and disinfection.

Membraneous croup.—There were 640 deaths in 1883, against 729 in 1882. The majority of them were undoubtedly from diphtheria.

Erysipelas.—There was a slight increase, from 149 deaths in 1882 to 173 in 1883. The mortality in ordinary and surgical cases is from three to seven per cent.; in very young children (infants) fifty per cent. or more. It is most common in hospitals in the spring months.

Whooping-cough.—There were only 327 deaths in 1883, against 658 in 1882. This either shows that disinfection is better carried out, or a diminution of the epidemic tendency.

Typhus fever.—There were only 15 deaths in 1883 against 65 in 1882. This disease always arises from the overcrowding of filthy people. It is generally imported and is very contagious. Only 388,547 emigrants arrived in 1883, against 455,450 in 1882, so that the danger from ship typhus was less; still the figures show good quarantine service, or else that the short passages of the steamships do not allow time for its generation; and doubtless more watchfulness over crowded lodging and tramp houses and speedier stamping out of the contagion by the health authorities.

Typhoid fever.—There were 470 deaths in 1883, against 362 in 1882; as this disease generally arises from infection and obstructed house-drainage the increase shows that these causes are in operation in country health resorts, etc., as, singularly enough, comparatively few cases arise in the city. Sewer-gas and large sewers do not cause it; but infection and small, obstructed, and badly ventilated drains.

Cerebro-spinal fever.—There has been a great increase in this disease from 238 deaths in 1882 to no less than 522 in 1883. It is probably also one of the filth diseases which is most common in cold and wet weather, and it has been suggested by Dr. J. C. Peters that it is a foul-air rheumatic fever.

Puerperal diseases have not increased or lessened; there were 407 deaths in 1882, and 406 in 1883 If they arise from infection, erysipelas, or foul air, the measures of disinfection do not seem to have been as efficient as in some other diseases. Perhaps when carbolic acid, or rather alcohol, has been abandoned for corrosive sublimate and the acids the results may be better.

Malarial diseases have lessened from 540 deaths in 1882 to 227 in 1883. The lessened supply of water may have let wet places dry out, and malaria with it; but perhaps the treatment of these diseases is now better than it was even one year ago. So mote it be.

The Etiology of Phthisis is expressed by a professor in Westminster Hospital College as follows (*Students' Medical Journal*):

> Some are born to phthisis,
> Some acquire phthisis, and some have
> Phthisis thrust upon them.

A Case of Spontaneous Cow-pox is said to have occurred in the Department of the Gironde, France. The lymph has been collected and inoculated.

Strychnine and Alcohol.—M. Dujardin Beaumetz contends, in the *Bulletin de Thérapeutique*, that strychnine has some antidotal power against alcohol, and that more alcohol can be given to animals without causing death, if strychnine be at the same time administered. It is useful also to combat the acute effects of alcohol, such as drunkenness and delirium tremens; but it does not at all prevent the degenerating action of this substance upon the tissues.

Oxide of Zinc as a Substitute for Iodoform.—In the treatment of wounds, Dr. Petersen, of Kiel, considers zinc oxide a good substitute for iodoform. It is cheaper, and is not poisonous.

Transactions of the Medical Society of Virginia, Fourteenth Session, 1883.—This is a well-printed volume of 220 pages, and contains a great deal of instructive matter. The reports on advances in medicine are for the most part well done, and form an excellent feature of the book.

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Original Lectures.

ON THE METHODS OF STUDYING THE BRAIN.

ABSTRACT OF THE CARTWRIGHT LECTURES, DELIVERED BEFORE THE ALUMNI ASSOCIATION OF THE COLLEGE OF PHYSICIANS AND SURGEONS, NEW YORK, FEBRUARY 2, 4, AND 6, 1884.

BY BURT G. WILDER, M.D.,

PROFESSOR OF PHYSIOLOGY, COMPARATIVE ANATOMY, AND ZOÖLOGY IN CORNELL UNIVERSITY, AND OF PHYSIOLOGY IN THE MEDICAL SCHOOL OF MAINE.

LECTURE II.

METHODS OF MANIPULATION: REMOVING, PRESERVING, AND EXAMINING THE BRAIN.

(Concluded from page 199.)

THE method last described (continuous arterial alinjection[1]) brings the preservative liquid most abundantly to the parts covered by the vascular pia, and is thus best adapted for the study of the ectal features of the brain, the base, the arrangement of the fissures and gyri, and the contour and proportions of the organ. With fœtal brains, where the parieties are thin and the entocœlian plexuses very large, this method may suffice for the due preservation of the entire mass; but with the adult human brain, if the special object be the determination of the form, extent, and connections of the cavities and the contour of their walls, arterial alinjection should be replaced by or combined with the *continuous injection of alcohol into the cœliæ themselves.*

The advantages of the *repeated injection of alcohol into the cœliæ* are as follows: 1, it facilitates the preservation of the entire brain; 2, it insures the preservation of the immediate cœlian parietes, and their contour is thus retained; 3, the apposed surfaces are kept apart, so that there need be no doubt as to the cœlian limits; 4, when either of the parietes is removed, the cœlia appears as a distinct excavation, and not merely a slight depression; 5, in transection, the cœlian lumen is clearly defined.

The continuity of the flow is provided for by the connection of the canula through a rubber tube with a reservoir of alcohol.

The place of injection varies according to the nature of the preparation desired. When the entire cavity is to be filled, or when the boundaries of the aula, etc., are to be studied, the canula is conveniently inserted into the orifice left by the removal of the hypophysis. The canula may even be tied into the infundibulum, but this measure is of doubtful utility. If there are reasons for not mutilating the mesal part of the base of the brain, the tip or side of a temporal lobe may be cut off and the canula inserted into the medicornu; or a postcornu may be reached in like manner; the tubular mesocele forms an admirable orifice for the reception of the canula, and, if the brain be transected at the mesen, either division may be alinjected separate.

During injection, the brain should be supported in such a way as to occasion the least possible pressure. When the entire brain is to be prepared by alinjection into both the arteries and the cœliæ, the former are washed out with warm water or normal salt solution (water, 2,000; sodium chloride, 15), or a ten per cent. solution of chloral hydrate, while it is still in the saturated brine in which it was placed after extraction. The alinjection canula is then secured in the basilar artery, and the cut ends of other arteries are tied. A towel or other piece of porous cloth is passed under the brain, and the latter thus transferred to a vessel of fifty per cent. alcohol; the ends of the towel are secured at the edge of the vessel so as to support the brain in its hollow at a proper level, the base being just above the surface of the liquid.

The flow of alcohol is regulated by "pinch-cocks;" it is naturally more free through the cœliæ than through the vessels, and in either case the overflow must be provided for. There should be a faucet near the bottom of the vessel and another near the top, a rubber tube leading from each into a receptacle holding at least as much as the reservoir of alcohol; in the mouth of the receptacle is set a funnel with a fine cloth to exclude particles which might clog the canulæ or the vessels. The ordinary overflow escapes by the upper faucet, but, when some adjustment or examination is required, the lower one is opened until the parts are exposed.

A brain preserved by one or more of the methods above described not only retains its natural shape and cavities, but is so firm of texture that it may be handled freely and carried like stearin. How much more available it is than a fresh brain for elementary study and for permanent macroscopic preparation can hardly be realized without actual experience. Each year, in our great cities, scores of human brains fail of their greatest usefulness or are altogether lost for lack of timely and systematic preservative measures; each year, likewise, scores of young doctors are graduated without the practical knowledge of the brain which they ought to have. All over the country, too, are curators of museums, physicians, and teachers who would greatly prize a human brain for exhibition or study. The skilful and public-spirited anatomist who will supply this legitimate demand, and utilize this wasted material, will at least be entitled to the gratitude of all who may be directly or indirectly benefited by his enterprise.

The brains of cats and other small animals are more easily cared for than that of man. Ordinarily, they should be left in a part of the cranium, and the edge of this may be clamped to the end of a wire, or the whole supported in a wire cage or a cup of sheet-lead or block-tin.

Amphibian brains should always retain a part of the skull, which may be securely held by means of the "garment-clasp" already mentioned. Since the delicate tissue will not resist even the weight of the canula, the latter is secured at a little distance from the brain, and the alcohol permitted to flow *at* the orifice. The best results from alinjection of the amphibian brain as a whole are when the alcohol is admitted through an orifice in either hemisphere; but, if both hemispheres are to be kept uninjured, the metatela may be partly detached. Strong alcohol may be used at the outset, but the brain must be first soaked in water or "normal salt solution" for 15 to 20 minutes to prevent adherence of the pia.

Solid injections of the cœliæ.—The advantages of a solid cast for studying the form of an irregular cavity are so great and so obvious that the rarity of such preparations is only to be explained by the prevalent neglect of all cœlian matters, which was referred to in the first

[1] Injection of alcohol.

lecture. The cœliæ of the cat have been injected with the three following mixtures: 1. Plaster-of-Paris and gelatin, equal parts. 2. Paraffin colored with orange chrome, melting point, 45° C. 3. "Base-plate" material (wax and gutta-percha) used by dentists, with a slight addition of gutta-percha and rubber in benzine, and of paraffin to lower the melting point.

All of these made good casts, the last named being the toughest, and therefore most satisfactory.

Removal of the brains of young subjects and small animals.—The saw is rarely appropriate, excepting when the entire head is to be hemisected. The instruments to be used are nippers, coarse, curved scissors, the trephine, and the dental engine. Of these, the most useful are the nippers, the "diagonal, side-cutting nippers," of the dealers in hardware.

Notwithstanding their name, the nippers are perhaps more useful for breaking than for cutting the skull in exposing the brain; all pulling upon the dura must be avoided, and the scissors may be employed for dividing the dura or thin portions of the bone. With children one or more years old, parts of the cranial bones are too thick for the nippers, and may be penetrated by the trephine. The marmoset exhibited at the lecture had its brain exposed by means of a burr and small circular saw operated by the dental engine, is well adapted for manipulations upon small animals and fœtuses, especially when the brain is to be exposed while fresh, so that any pressure or traction may do harm; by it, also, the calva may be detached in two pieces, as already described for the adult, and, finally, the base of the skull may be removed piecemeal, either for ordinary exposure of the brain or in the isolation of the roots of the cranial nerves.

Dissection of the brain.—From the practical standpoint, encephalic anatomy contrasts strongly with the anatomy of the rest of the body. With the latter, dissection is universal, and sections are seldom made; with the former, sections, microscopic or macroscopic, are the rule, and dissection almost unknown. The difference is due to the "nature of things," just as is the preponderance of osteology over neurology, but, like many other natural conditions, it may need modification.

The advantages of sections for surgical, pathological, and regional study are obvious; they are easily made, even with the fresh adult human brain, especially by means of the apparatus devised by Professor Dalton.[1] If the human brain were like that of a frog or *Necturus*, or even an opossum, with the several segments of approximately equal size, and nearly upon the same plane, the common method would be more appropriate for macroscopic study. But, in view of the extreme cephalic flexure and the overlapping of certain segments by others, the objections to sections are as follows: 1. They present plane surfaces which do not naturally exist in the brain. 2. They are almost invariably oblique with respect to the cœlian axis. 3. They always include more than one encephalic segment, and are therefore, so far as the beginner is concerned, apt to be more confusing than instructive. Admitting that sections have their uses, what I urge is, not that section-making be practised less, but dissection more.

The methods of dissecting the brain taught in the Anatomical Laboratory of Cornell University may be indicated briefly as follows: 1. The art of dissection is acquired upon the brains of common mammals. 2. Alcoholic brains are dissected before fresh ones. 3. The normal, macroscopic structure of the organ is carefully studied before the microscope is used or pathological specimens examined. 4. In addition to sections with large knives, *dissections* are made with small scalpels, and cavities are explored with blunt points and blowpipes. 5. Delicacy of manipulation is insisted upon.

Let us examine into the soundness of these methods.

First.—Aside from facilitating the comprehension of encephalic morphology and imparting manual dexterity, the value of preliminary dissection of the brains of common mammals depends upon the correctness of the three following propositions: 1. The human brain, even under the most favorable conditions, is more or less difficult to obtain, preserve, and dissect. 2. The most real and lasting kind of knowledge is that which is obtained, not from descriptions or plates, nor even models, but from actual handling and inspection of the thing itself. 3. Notwithstanding man's obvious physical peculiarities, his reputed mental and moral distinctions, and his presumed unique destiny, the human brain contains few, if any, parts visible to the unaided eye which are not represented in the brain of some other mammal.

As compared, therefore, with the study of descriptions or plates of the human brain, the actual brains of cats, dogs, rabbits, monkeys, sheep, etc., may be examined in the expectation of learning the forms, connections, and relative positions of parts, and, neither last nor least, their names.

Were the human brain absolutely inaccessible for dissection, as it is for experimentation, the anatomist would be forced to follow the example of the physiologist and gain all his encephalic information from animals. In view of the inconvenience and expense—nay, too often, the impossibility—of procuring fresh or well-preserved human brains, to permit their dissection by beginners is, as I said five years ago,[1] as if journeymen carpenters and tailors were to learn their trades upon rosewood and cloth of gold. *Fiat experimentum in corpore vili.*

Second.—The second rule is based upon three practical considerations: 1. Of the visible features of encephalic parts, form, relative position, and connection are distinctly morphological, while color, like histological composition, has a physiological significance. 2. The fresh brain is less easy to cut, and requires constant support, whereas the alcoholic may be held in any position and carved like cheese. 3. The beginner should advance cautiously, and therefore slowly, and the medical student is especially liable to interruption. The fresh brain remains fresh but a very short time, while the alcoholic is in itself imperishable. Leisure means not only more careful dissection, but also the taking of notes and the making of drawings; hence all the arguments which I have advanced in favor of preliminary anatomical work upon a small animal, which may be kept in alcohol for an indefinite time at slight expense, apply to all alcoholic brains in general, and to those of cats and other animals of moderate size in particular.

After repeated dissection of alcoholic preparations, the anatomist is better qualified to manipulate the fresh brain and to appreciate its beauty.

Third.—This rule is in strict accordance with common sense, and with custom in most branches of learning. Its two divisions have been separately enunciated by writers who certainly were not ignorant whereof they spoke. Whether or not, in some cases, the authors of histological papers are not altogether clear respecting the position and relations of the parts concerned, the systematic observance of this rule would at least reduce the number of readers of such contributions who neither appreciate their excellences nor recognize their defects from a lack of adequate familiarity with the gross anatomy of the brain.

The objections to the primary employment of the microscope do not apply to the use of a simple lens like the "tripod magnifier" or "linen tester," which assists the eye to see more plainly that which is already visible, but introduces neither optical nor histological complications.

Fourth.—Large knives are useful in making sections, and in reducing the brain so as to permit ready access to the region to be examined. But it is to be noted that, excepting at the mesen, the encephalic parts are never

[1] Medical Record, February 15, 1879, July 31, 1880.

[1] N. Y. Medical Journal, October, 1879: The Anatomical Uses of the Cat.

bounded by plane surfaces, or by straight lines, so that the natural contours are more easily and successfully exposed by means of narrow-bladed scalpels and probe-pointed instruments. The so-called "Charrière" scalpel answers the purpose generally, but sometimes, especially with fœtuses and small animals, eye-knives with still narrower blades are required. In the exploration of cœliæ and the determination of the relations of membranes and plexuses, the dissection is accomplished less by cutting than by "poking" and "blowing," for which the syringotome, or tracer, and the flexible blow-pipe, are indispensable. Whoever once employs the first-named instrument upon the brain will never willingly be without it. The length and flexibility of the blow-pipe enable one to blow in any direction, and to hold the object at a distance convenient for observing the effect of the inflation. So instructive indeed is this mode of temporary injection that one of Oliver Wendell Holmes' "Aphorisms for Dissections" may be extended to read: "Let the eye go before the hand, the mind before the eye, and the breath before the mind."

This rule is aimed at all forms of anatomical Philistinism. Hyrtl complains (p. 62) that "some people hold the forceps like fire-tongs, and the scalpel like a cheese-knife." One of the most common and pernicious habits of the anatomical beginner—who is a Philistine only when he makes no effort to reform—is that of aimlessly pinching and poking his specimens, especially when showing them to others.

Original Articles.

AN IMPROVED METHOD IN THE TREATMENT OF CERTAIN FORMS OF SKIN AFFECTION.[1]

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THE method of treatment indicated in the title of this paper consists essentially in the application of medicinal substances to the skin in the form of fixed, adhesive preparations. Its object is to confine the application of the drug to the diseased surface alone, and to secure its continued action by maintaining it in prolonged contact with the tissues by means of a practically immovable dressing.

For the attainment of this object a number of procedures have been employed. First, applying the drug in the form of a powder or paste, and retaining it in position by means of a protective coating formed by a layer of collodion or a piece of gutta-percha tissue. Second, by an admixture of the drug with a gelatine mass, which is painted over the surface, forming a thin adherent layer, with the addition of glycerine to render it soft and pliable. Third, by the application of a thin layer of collodion or gutta-percha solution, holding the drug in liquid suspension. Fourth, by incorporating the drug with adhesive plaster muslins, the basis of which is gutta-percha, which are cut into convenient shape so as to admit of accurate adjustment to the affected surface.

I have designated these several contrivances collectively—since they are all designed to accomplish the same object—as constituting a new and improved method in the treatment of certain forms of skin affection. I have not the pretension to suppose that in the presentation of this subject I shall offer anything of novelty to dermatologists, who are, presumably, already familiar with this innovation upon established methods; yet to the profession at large, who may not have kept pace with recent advances made in this special field, I have thought that a brief exposition of these procedures might not prove uninteresting.

Although their introduction dates back one to two years, yet they may be regarded as substantially new, since they are not described in any of the recent text-books on skin diseases to which the general practitioner is accustomed to refer for information concerning the most approved plans of treatment. It is, perhaps, scarcely necessary for me to premise that I claim nothing original in connection with this method, only the endeavor to present, as concisely as may be consistent with clearness, the main features of its application, the conditions in which it is indicated, and an appreciation of its value based upon clinical results, derived partly from my own experience, but largely from the experience of others. Since these new devices for the topical application of drugs were brought to the notice of the profession sufficient time has elapsed to enable us to test their efficacy in a variety of cutaneous disorders, and I feel assured that of those who have experimented with this class of preparations, few will deny that their introduction marks a decided advance in cutaneous therapeutics.

In order to justify the claims for superiority alleged for fixed, adhesive applications in the treatment of certain forms of skin disease, it may be well to glance at the appliances hitherto employed for bringing drugs in contact with the cutaneous surface. As is well known, these consisted chiefly of powders, lotions, pastes, plasters, and ointments.

While these preparations admirably fulfil the desired indications in many cutaneous diseases, yet their use has always been found to be attended with certain disadvantages. For example, powders, which are usually applied for purposes of protection, are easily rubbed off, and when employed for drying up an exuding surface, they frequently form crusts, which prove sources of irritation and aggravate the existing eruption. Lotions rapidly evaporate, necessitating constant renewal, otherwise they leave the skin dry, stiff, and brittle, thus occasioning much uneasiness and distress. Of pastes and plasters it may be said, that the former are used chiefly as a means of applying caustics and strong stimulants, and necessarily have a very limited application; while plasters as formerly prepared have never become popular as a means of applying drugs to the skin. The resins employed in the preparation of many plasters to give the requisite consistency act as strong irritants, often intensifying the inflammatory conditions present.

Ointments have been generally regarded as the most convenient and efficient means at our command for the external employment of drugs. But ointments are easily rubbed off, or absorbed by the clothing, and can only be efficiently employed by being spread upon lint or muslin, and kept in position by careful bandaging—a procedure which involves tedious manipulation, and is more or less cumbersome. As a curious illustration of the fashions which prevail in cutaneous therapeutics, the venerable Erasmus Wilson says: "When first I commenced the treatment of diseases of the skin, water dressings had just been introduced, and they suddenly became the surgical fashion of the day, while a general outcry was raised against ointments, 'greasy applications,' as they were contemptuously termed." While the use of ointments has fortunately survived this onslaught, yet it must be admitted that they will always be open to the objection that they are uncleanly and offend the tastes of our fastidious patients.

Ointments, too, often aggravate the symptoms they are intended to relieve; their irritating quality may be due to faulty preparation, gritty particles of the active ingredient may be present, an impure or rancid fat may have been employed by the apothecary, or when properly prepared and applied, there may be a rapid decomposition of the fat, a reaction which is peculiarly favored by contact with the highly oxidizing surface always present in inflammatory congestions.

Another objection to ointments is that they do not have sufficient solidity or consistency for exclusion of the air and complete protection of the surface. In diseases in which the lesions are circumscribed, scattered,

[1] Read before the New York Academy of Medicine, February 21, 1884.

and separated by large interspaces of healthy skin, it is found impossible to restrict the application of oleaginous preparations to the seat of the disease. They have the inconvenient property of diffusing themselves over the surrounding healthy surface, and, when active drugs are used, causing irritation, oftentimes inflammatory reaction of considerable severity, and thus propagating the extension of the diseased process.

In thus indicating certain defects in the classic modes of applying drugs to the skin, I do not mean to detract from their real and acknowledged utility. In irritable, highly sensitive conditions, in acute generalized eruptions of an inflammatory character, they constitute our most valuable means of cure, and for which no equally efficient substitute has been found. Neither, on the other hand, do I claim that the introduction of fixed, adhesive applications is to revolutionize the external treatment of diseases of the skin. Their range of application is by no means universal, on the contrary, it is comparatively limited. In many skin diseases, the localization of the eruption, the high grade of inflammatory reaction present, and other conditions, render their employment impossible. The point I wish to emphasize is, that the older processes are by no means perfect, and that the new appliances, by securing greater precision and permanence of action, and by better fulfilling other indications which all authorities recognize as essential and important, constitute a most valuable acquisition to the methods employed in dermatological practice.

In this connection it may be incidentally remarked that cutaneous pharmacy has not kept pace with the improvements made in the form and character of the preparations designed for internal medication. In place of the crude drugs and nauseous mixtures formerly in vogue, modern pharmaceutical chemistry has placed at the disposal of the physician remedies which are palatable, pleasant, and efficient. While dermatologists have been actively employed in developing the virtues of new drugs, until recently comparatively little attention has been paid to improving and perfecting pharmaceutical processes by which the highest measure of their usefulness might be obtained without their countervailing disadvantages.

Among the many valuable drugs with which our cutaneous materia medica has been enriched within the past few years may be mentioned chrysarobin, pyrogallic acid, salicylic acid, naphthol, ichthyol, etc.

These new drugs, like many of the standard agents employed in cutaneous therapeutics, possess powerful stimulating properties, and when improperly used do positive harm. Clinical experience proves that it is not only necessary to have good drugs, but to know how to use them.

It is now generally recognized that chrysarobin is the most efficient agent known to the profession for the external treatment of psoriasis, and certain chronic diseases of the skin. The inconveniences attending its use in the form of an ointment have restricted its application and, practically, led in many instances to its rejection as a means of cure. The objectionable features were its property of staining the skin, hair, and nails, of indelibly dyeing every article of clothing with which it came in contact, but notably its irritating effect upon the surrounding healthy skin, and the frequent production of erythematous, furuncular, and erysipelatous inflammations. These decided inconveniences were the occasion of an effort on the part of dermatologists to devise means by which the superior virtues of the drug might be retained without its attendant disadvantages. This effort was so eminently successful in the case of chrysarobin, that its application has been extended to many other drugs, and has resulted in the building up of the class of preparations which form the subject of this paper.

To Dr. Fox, of this city, belongs the credit of being one of the first to originate an expedient for confining the action of chrysarobin to the affected patches. Some two years ago (*Medical News*, March 18, 1882), he suggested the employment of this drug in powder, or mixed with water, forming a paste which was applied upon the psoriatic patch, and retained in place by a layer of collodion spread over the surface, or by covering it with a piece of gutta-percha tissue, the edges being rendered adhesive by touching them with chloroform.

This process, which involved considerable manipulation, and required much time and patience on the part of the operator, when the patches were large and numerous, was speedily substituted by another and more convenient method.

Seseman (*Monatshefte f. Praktische Dermatologie*, February 1, 1883) proposed the use of chrysarobin suspended in collodion, which is painted over the surface, forming a thin adherent coating. The medicated collodions now embrace a large number of drugs, and are used in a variety of conditions which will be referred to later. They have the advantages of being always ready for use, convenient of application, perfectly cleanly, and remain fixed upon the skin for some time.

Prof. Pick, of Prague, proposed (*Monatshefte f. Prakt. Dermatol.*, Bd. 11, No. 2, 1883) the use of gelatine dissolved in water as a convenient vehicle for the application of drugs to the skin. The formula for its preparation he gave as follows: 50 parts of pure gelatine are dissolved in 100 parts of distilled water, the active ingredient is added in any desired proportion, and thoroughly admixed by continuous stirring. This medicated gelatine may be immediately applied or turned into a convenient receptacle, where it solidifies into a cake. When required for use, portions of this may be melted in a shallow vessel placed in hot water. It is then applied by means of a short, stiff brush over the surface in a thin layer. A small quantity of glycerine is smeared over the gelatine coating with the hand, which prevents it from drying and cracking. This thin, flexible dressing remains fixed to the skin for a day or two, and may be peeled off, or readily removed by the use of a little hot water. In addition to its cleanliness and other advantages, it is claimed that a view of the diseased parts may be had through the transparent dressing, thus rendering the progress of the disease visible without removing the application. I have found, however, that this transparency is rather an uncertain element, depending altogether upon the character of the medicament employed.

Prof. Unna, of Hamburg, proposes (*Monatshefte f. Prakt. Dermat.*, vol. xi., No. 2) a modification, which in the matter of convenience may be regarded as an improvement upon Pick's plan. It consists in combining the glycerine directly with the gelatine before it is spread upon the surface. The glycerine jelly is made by boiling one part of gelatine with three or four of glycerine, until they form a translucent mass. When required for use, a portion of this mass is liquefied by heating, the medicinal ingredient, being finely rubbed up with water or glycerine, is then added, and the resulting compound well shaken until it becomes a tenacious fluid. He employs the gelatine in varying proportions, resulting in the formation of hard and soft glycerited gelatines, containing respectively five, ten, and twenty per cent. of gelatine. The author, in conjunction with Beiersdorf, has made a number of careful experiments with the view of ascertaining the exact combining proportions of various active ingredients, and gives a series of tables embodying the results.

Dr. Mitchell, of Philadelphia, manufactures a number of medicated gelatine plasters, which are put up in quite a convenient shape. The gelatine and glycerine compositions, with which a variety of drugs have been incorporated, are moulded in solid rolls, and when required for use a portion may be cut off, liquefied by heating, and applied with a brush. I have experimented with his preparations of chrysarobin, tar, pyrogallic acid, iodoform, oxide of zinc, etc., and with very satisfactory

results. The only objection I have found is that they deteriorate in keeping, and are apt to become mouldy, which defect could, no doubt, be overcome by a larger admixture of gelatine, or by a small quantity of salicylic or carbolic acid. The gelatine preparations which I now employ are made for me by Hayes & Sons, druggists, of this city.

Prof. Auspitz (*Medicinische Klin. Wochenschrift*, Nos. 30 and 31, 1883) proposed the use of a vehicle, which he terms traumaticin, as more convenient than either collodion or gelatine in the application of chrysarobin and certain other drugs, as pyrogallic acid, salicylic acid, etc. This consists of a ten per cent. solution of refined gutta-percha in chloroform, and corresponds to the liq. gutta-perchæ, U. S. Ph. Among the advantages which he claims for traumaticin as an excipient may be mentioned the following: It forms a thinner and more delicate artificial cuticle than either gelatine or collodion; it is more durable, adhering to the skin two or three days or longer without cracking; it is neutral and unirritating, causing neither tension nor pain; it is more elastic, its flexibility admirably adapting it as a covering for the joints, as it yields readily to the motion of the parts; it is always ready for use, and, as it hardens more slowly, it admits of a more thorough application.

Finally, may be mentioned another method for the topical application of drugs, viz.: gutta-percha plasters. Although not absolutely new in form, yet in their composition, impermeability, adhesiveness, and other qualities, they constitute a decided improvement upon the lead and resin plasters. These preparations, introduced by Beiersdorf upon the recommendation of Professor Unna, consist of plasters spread on muslin, the basis of which is gutta-percha, combined with different drugs in varying proportions, some emollient, others strongly stimulant. They possess decided advantages in cutaneous disorders localized in certain regions, such as the palms, soles, fingers, toes, and interdigital spaces, on parts habitually in contact, such as eczemas of the anus and genital regions, the crease of the thighs, etc. They are cut into narrow strips or other convenient shapes, so as to admit of accurate adjustment.

Having thus described the new modes of applying drugs to the skin, it remains for us to examine the verdict which clinical experience has passed upon their value. As before intimated, this class of preparations was the outcome of an attempt to obviate the ill effects of chrysarobin—a drug which, while possessing a wonderfully curative action, was found to be equally potent for mischief. By its employment in any of the fixed forms above mentioned its obnoxious qualities are entirely suppressed, without impairing its efficacy in any marked degree.

In the treatment of psoriasis, all who have experimented with the drug in these new combinations agree that the results are much more brilliant and satisfactory than by any other method of treatment. Referring to its combination with collodion Dr. Fox (*The Æsculapian*, February, 1884) says: "Now it is a comparatively simple matter to cause a speedy disappearance of the scales in nearly every case. And it is another step in advance which has superseded the ointment of chrysarobin by applications of the remedy which do not ruin the clothing and inflame the healthy skin." He has found that the efficacy of chrysarobin collodion is materially enhanced by the addition of ten per cent. of salicylic acid.

"In chronic eczema of the trunk and extremities, where there is much thickening of the skin with no moisture on the surface," Dr. Fox claims "that the compound chrysarobin pigment will produce as rapid and beneficial effects as in cases of psoriasis." He has also employed this combination in lupus erythematosus, in acne of the back, and in other diseases, with good results.

Auspitz (loc. cit.) reports admirable results from the use of his traumaticin chrysarobin in the treatment of psoriasis. After from two to twelve applications, according to the extent and severity of the disease, the infiltration and scales disappear, leaving in their place white spots bordered by a red or violet-brown line.

He gives a detailed report of a number of cases in which the psoriatic process was stopped after a short series of applications made daily or every second day. He claims that the most satisfactory results are obtained by the same treatment in prurigo, in eczema marginatum, and other parasitic diseases. In prurigo the application of the chrysarobin traumaticin immediately relieved the itching and in a few cases, after from two to six applications, the nodules had disappeared.

Dr. E. Besnier, of the Hospital St. Louis (*Annales de Dermatologie et de Syphilographie*, January 25, 1884), after extolling the superior efficacy of this mode of treatment in ordinary cases of psoriasis with moderate infiltration, proposes a modification of Auspitz's plan, which he employs when the patches are larger, the infiltration deeper, and the scales thicker and more abundant. After removing the scales, he vigorously rubs the patches with a small brush of hog bristles, dipped in chloroform containing fifteen per cent. of chrysarobin. The chloroform rapidly evaporates, leaving a deposit of pure chrysophanic acid. This is then covered with a coating of traumaticin by means of a flat varnish-brush. He also employs an ethereal solution of pyrogallic acid, ten per cent., in the same manner. He regards naphthol as admirably adapted for employment in the gutta-percha solution, constituting an instantaneous means of destroying animal parasites.

Dr. Pick (loc. cit.) reports equally favorable results in psoriasis from the use of the glycerited gelatine, medicated with ten per cent. of chrysarobin or twenty per cent. of pyrogallic acid. He has found the glycerine applications of especial efficacy in the treatment of chronic scaly eczema, and eczemas associated with varicose veins. In erythematous conditions due to the action of cold, glycerited gelatine containing five to ten per cent. of salicylic acid has been applied with advantage, particularly in frostbites of the ears, nose, and fingers, the layer of gelatine exerts an equable and gentle pressure upon the parts and in this way hastens the absorption of inflammatory products. He also extols the salicylated and carbolated preparations in pruritus, both idiopathic and symptomatic.

In Billroth's clinic (*Med. Times and Gazette*, November 10, 1883) iodoform collodion is used in immense quantities, and is regarded as a sovereign remedy in fresh cuts and bruises. Iodoform and corrosive sublimate collodions are used for condylomata and syphilitic scleroses.

Dr. Taylor, in the last edition of Bumstead and Taylor "On Venereal Diseases," states that he has employed the compound chrysarobin pigment with benefit in hypertrophic and vegetating papular or tubercular syphilides.

Dr. Thin reported before the Clinical Society of London, November 23, 1883, a number of cases of thickened, hardened epidermis occurring upon the hands and feet, which were effectually relieved by salicylic gutta-percha plasters. In some of these cases the condition had existed for years, interfering with locomotion and occasioning great discomfort. In one case the whole ball of one foot and part of the surface of the other was covered with a layer of epidermis of extreme hardness. In this hard layer there were small isolated horny formations of the nature of corns, which produced the sensation as if the patient were walking on shot or small stones. By the use of the salicylic gutta-percha plaster the hardened mass came off, leaving a delicate rose-colored epidermis. The cure is effected without inconvenience or pain, or interfering with the ordinary avocation.

I have experimented with these preparations in a variety of cutaneous disorders, and, for the most part, with satisfactory results. My experience in the treatment of psoriasis coincides with the brilliant results already given. In psoriasis affecting the face and hairy scalp, I have applied the chrysarobin to affected patches

without exciting conjunctivitis, œdema of the face and eyelids, and other ill effects inseparable from the use of the drug in ointment in these localities.

I have found these combinations particularly serviceable in chronic eczematous disorders, especially when characterized by thickening and induration of the skin with excessive pruritus. Even in a more acute stage, when there is active congestion with exudation, the use of the gelatine, medicated with ten per cent. oxide of zinc, has given good results. I have also used the same preparation with decided benefit in a number of cases of eczema rubrum of the legs. I shall not attempt to give a detailed report of these cases of eczema, but will briefly refer to the results obtained in one case, which may be regarded as typical. The patient was an old gentleman, who suffered had for many years from chronic eczema, involving the face, genitals, and other portions of the body. The skin of the face was much thickened and infiltrated, giving it an almost elephantiasic appearance. Exposure to the cold caused it to crack and fissure, especially around the nostrils and the angles of the mouth. The itching was positively atrocious, the patient being unable to sleep, and in a constant state of the most acute discomfort. The various emollient and antipruritic ointments failed to give more than momentary relief. A single application of the gelatine, medicated with ten per cent. oxide of zinc and one per cent. carbolic acid, gave instantaneous and complete relief, which lasted for several hours, until the artificial cuticle began to crack from constant movements of the facial muscles. Not only was the itching relieved, but the vigorous rubbing and scratching which the patient could not before control, and which continually aggravated the eruption, was entirely done away with. After a few days' daily painting with this preparation, the cracks and fissures healed, and the induration had almost entirely disappeared. A feature of this case furnished a fair test of the comparative advantages of the new and old method. Over the eyelids the gelatine coating could not be applied, for obvious reasons, and the orbital surface was treated with oleate of bismuth ointment. After a few days' treatment, one could trace by the touch alone, the exact line at which the gelatine coating terminated; above this line the skin was harsh, dry, and thickened; below, it had the soft, supple feel of healthy skin.

I have used a five per cent. salicylic acid collodion in acne rosacea and chronic erythema of the face with good effect, and a stronger preparation for corns, warts, and tylosis of the hands and feet. I have also used chrysarobin suspended in collodion, and the gutta-percha solution in two cases of chromophytosis, and in a number of cases of tinea capitis. In addition to the remarkable antiparasitic action of chrysarobin, we secure more or less complete occlusion of the surface, thus preventing the access of oxygen, so favorable to the growth and development of the parasite.

As regards the comparative advantages of the different excipients which have been proposed for the fixation of drugs upon the skin, not all experimenters agree. My own experience leads me to the conclusion that each possesses special advantages, determined by the nature of the diseased process, the character of the circulatory changes present, its sensitiveness, localization, etc. In extensive generalized eruptions, when the skin is actively congested and sensitive, the gelatine preparations are the most soothing and easily borne; both collodion and traumaticin cause more or less pain, tension, and irritation.

In chronic disorders, where there is passive congestion or sluggishness of the circulation, the more continuous and decided compression exerted by the collodion combinations renders them preferable. Upon mobile parts, such as the region of the joints, the gutta-percha preparations, from their greater flexibility and elasticity, are to be preferred. As far as manipulative details are concerned, the collodion and gutta-percha preparations are superior in the matter of convenience and ease of application, besides being always ready for use.

In concluding this paper, which has extended much beyond the limits proposed, a summary of the advantages offered by fixed, adhesive applications may be given as follows: First, complete protection, and exclusion of the air from the diseased surfaces; second, fixation of the drug upon the affected parts, thus securing greater precision and permanence of action; third, maintenance of a gentle and uniform compression, thus modifying circulatory changes and limiting exudative products; fourth, comparative cleanliness.

It may, perhaps, be considered premature to pronounce positively upon the merits of these preparations, or to decide closely their range of therapeutic application, yet a careful study of the results of their use in the hands of others, supplemented by my own experience, justifies me, I think, in formulating the following conclusions: That the introduction of fixed, adhesive applications in the treatment of certain forms of skin affection, marks a veritable advance in cutaneous therapeutics.

That they are admirably adapted for the employment of certain powerful stimulating drugs recently introduced into dermatological practice, as well as other standard drugs.

That they constitute the most effective mode of applying drugs in certain pathological conditions characterized by hyperæmia of the dermas with inflammatory overgrowth of the epithelial elements, as in psoriasis and dry, scaly eczema.

In conditions characterized by hyperplasia of the cuticle, as in callosities, corns, and over-growths of thickened, hardened epidermis, etc.

In conditions of capillary congestions of a passive character, as in acne rosacea, chronic erythema, etc.

In certain neurotic conditions, not only in essentially pruriginous diseases, as prurigo, but in the pruritus, symptomatic of other affections.

In circumscribed lesions generally, as tinea circinata, tinea capitis, eczema marginatum, chromophytosis, syphilitic scleroses, lupus, and, possibly, epithelioma.

No. 5 East Forty-first Street.

CAN THE DURATION OF THE COURSE OF TYPHOID FEVER BE LESSENED?

By H. D. FRY, M.D.,

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It would be a useless waste of time were I even to enumerate the names of our most eminent medical authorities who have answered this question in the negative, and, I dare say, a great majority of medical practitioners would acquiesce in such an opinion. Doubts concerning the infallibility of this *dictum* first arose in my mind after the perusal of the interesting lectures[1] by Dr. Thomas King Chambers.

This distinguished clinician held the opinion that the virus of typhoid fever entered the system by way of the alimentary canal. Becoming mixed with the saliva it was carried down into the stomach and there found a soil for multiplying itself in the gastric mucus.[2]

The gastric disorders which occur in the first stage of the disease he recognized as an evidence that the mucus membrane of the stomach was an early recipient of the poison. The occurrence of spontaneous vomiting was looked upon as an effort of conservatism, by which means the system ridded itself of the disease-germs; and, acting upon the above theory, Dr. Chambers imitated Nature by the administration of emetics.

To quote his own words, he says: "At an early stage, even after the virus has begun to act upon the system, the fever may be stayed by emptying the stomach, and

[1] The Renewal of Life. Second American edition. Philadelphia: Lindsay & Blakiston. 1866.

[2] In confirmation of this theory he claims that during severe epidemics those who smoke and chew tobacco, especially if they spit out the saliva, are less liable to be attacked.

thus preventing the whole dose being taken up. Those who have watched my practice will have witnessed several instances of the success of this treatment, they will have seen the fever cut short and convalescence entered upon immediately, with its characteristics of painless weakness and emaciation, gradually passing away" (page 90).

And again, he says: "When we see so often the immediate consequence of one dose of so simple a remedy, it is difficult to avoid the conclusion that its benefit is purely mechanical, and that it acts by removing from the mucous membrane of the stomach a poison only partially absorbed and still adherent to it" (page 91).

Such is the reasoning of this fascinating writer, who then goes on in subsequent pages to illustrate the good effect which follows the emetic treatment. On page 90 is reported the case of "W. S——, a robust lad, aged fifteen, who came into the hospital September, 1860, with hot skin, rigors, excessive muscular languor, pain in the back, limbs, and head, of four days' duration, gurgling in the right iliac fossa, and rose spots." Coincident with the action of an emetic there was a universal remission of all the symptoms and convalescence began. Three other cases are given on pages 128, 129, and 132, in which the same result followed the administration of emetics.

I cannot omit to express some regret at the loose nomenclature which Dr. Chambers has seen fit to adopt. Although it is true that he recognized two varieties of low continued fever prevalent in London, and called them typhus or typhoid, according to which of the two classes they belonged; still he made no distinction in treating them, and as a clinical teacher he therefore used the term typh-fever to include both varieties. We miss very much, too, the record of observations made with the clinical thermometer. But for this gentleman's reputation as a close observer and practical teacher these objections would demand greater attention than is otherwise the case.

The difficulty of arriving at a correct diagnosis of typhoid fever, in its first stage, is to be considered, when we attempt to reach any conclusions regarding the effects of remedies in shortening the duration of that disease. The difficulty is, not only that we may overlook the fever when present, but that other complaints, simulating the early symptoms of typhoid, may be mistaken for that disease and treated as it.

In the latter case, if the natural duration of the course of the true disease is shorter than that of typhoid fever (as it is apt to be), we might continue in error, and attribute what would be an early convalescence to the effect of eliminative treatment. If a case of continued fever stops much short of three weeks, the natural inference is that it was *not* typhoid. Therefore, if by an emetic, or any means you succeed in shortening the duration of the course of typhoid fever, then must come the difficult task to prove to the skeptic that the attack *was* really *typhoid*. Otherwise an affirmative answer cannot be given to the important question which forms the subject of this paper.

As confirmative evidence of the existence of typhoid, we can take into consideration the predisposition thereto furnished by the age of the patient and by the season of the year; we can consider, also, the prevalence of the disease in certain localities and families, the existence of the usual premonitory symptoms, and the characteristic temperature wave of the body heat. The clinical thermometer is, in fact, the chief aid in the diagnosis. The morning remission and evening exacerbation, together with the tendency to increase of heat on each succeeding day, are strong presumptive evidence of typhoid in the absence of other causes for the fever. And finally, the point that I wish to lay particular stress upon, in this connection, is that of the *subnormal* temperature of convalescence, coupled with extreme languor and emaciation, which are out of proportion to the intensity of the spent disease, *i.e.*, when its course has been shortened. Subnormal temperature, to be sure, is a feature also of the convalescence of the disease when its course has *not* been interfered with; but, on the other hand, the emaciation and languor are, in that case, in unison with the long duration and intensity of the fever. In other words, whereas the duration and cause of the fever may be abridged and altered, the convalescence is the same in shortened cases as in those uninterfered with. Indeed, if there is any difference, it is shown by the emaciation yielding more slowly, or even continuing to progress for a while, in those cases which have been abridged.

Such was the experience of Dr. Chambers. In speaking about one of the aborted cases of the disease, to which I have already referred (page 128), he uses these words: "*He*," referring to the patient, "*is now emaciating, and emaciating extensively, and convalescent.* . . . The emaciation," he continues, "is a phenomenon of great interest; it shows how large an amount of tissue is interstitially poisoned in typh-fever; how large an amount requires to be carried off by destructive metamorphosis during the renewal of life. In such cases as this, when the fever is cut short, it by no means follows that the emaciation should be cut short, and in point of fact it is not so. The removal of the destroyed tissue is a necessary part of the case."

Had the thermometer been used in Dr. Chambers' cases, I do not doubt but that subnormal temperatures would have been registered during the convalescence of his patients.

In addition to information of a positive nature, we can call to our aid, for the purpose of determining the character of the fever, important negative evidence, by excluding from consideration certain affections, the symptoms of which bear a more or less close resemblance to those of typhoid fever. Certain local inflammations, more particularly I might mention catarrhal affections of the mucous tracts of the respiratory and digestive organs are to be eliminated. And I can easily conceive how a latent pneumonia, in its first stage, may simulate the early symptoms of typhoid; how, acting under such an error of diagnosis, an emetic may be given, and coincidently with its action a drop of the febrile symptoms may occur; and how, if we stopped here, the belief may even be entertained that a typhoid had been abridged.

But this sudden drop of fever heat, or crisis, which often happens at the second stage of this disease, is met with only in the croupous or acute lobar pneumonia, and in that the physical signs of the second stage are so well marked that none but a careless diagnostician would continue longer in error.

Catarrhal affections of the gastro-intestinal tract are accompanied by a set of symptoms which, by careful watching, will usually reveal their nature. However much diseases of this part may simulate typhoid fever which runs its full course, they do not resemble (what interests us more) that disease when it has been abridged. And again, the eliminative treatment herein recommended, instead of shortening would rather aggravate any gastro-intestinal affection. If, for instance, a typhlitis should be mistaken for typhoid fever, and the emetic and purgative treatment administered, the result would be more likely to extinguish the course of the patient than that of the disease.

In point of fact, I will now consider the one disease which offers the greatest obstacles to a differential diagnosis between it and typhoid fever in their early stages. I refer to malarial or remittent fever. In this malady we recognize, by the exclusion of local affections, that we have a specific fever to deal with. The question comes up, Is it remittent or typhoid? Both are accompanied by nearly similar prodromic symptoms, showing the presence of a poison circulating in the blood. Chilliness, headache, languor, loss of appetite, nausea or vomiting precede, in both, the febrile development. After the disease has become established the thermome-

ter, for a time, will show a difference between the curves of the fever in the two affections. But it is necessary to distinguish between them before the disease has become established, if we wish to use prompt treatment and abridge the course of typhoid. To delay for the appearance of evening remissions, which, if the disease is typhoid, is not apt to come, is to let the golden opportunity pass and the fever virus to gain a foothold.

In children and young persons the difficulties to be overcome are greater than in those of riper years, not only between these two affections, but also between typhoid and the local inflammations. This is due to the twofold reason that the fever curve of typhoid is much more irregular in them than in adults, and because local troubles are slower to manifest themselves in early life.

The rule of treatment which has governed me in the investigation of this subject is this: Having, as I said, concluded that the fever is *not* of symptomatic origin, I administer quinine in sufficient doses to produce cinchonism upon the first day that the case comes under observation. If, on the next day, the fever be not arrested, I lay aside the *possibility* that it still may be of a malarial nature, and resort to prompt action in consideration of the *probability* that it is typhoid. Without further delay, therefore, a powder is ordered containing ten (10) grains each of ipecac and calomel. When emesis takes place large draughts of warm water are directed to be taken. These not only facilitate the acts of vomiting, but also wash the stomach out more thoroughly. Several hours later the calomel will occasion the evacuation of two or three, perhaps more, loose, bilious stools. It is seldom that hypercatharsis occurs in sufficient degree to demand the use of any remedy. No other medicine is given, and the case treated expectantly—the patient kept quiet, put upon a liquid diet, and sponged with tepid water.

Calomel was added to the eliminative treatment of Dr. Chambers, because I thought better results might be obtained by clearing out the whole *primæ viæ*. The virus may, for aught we know, multiply in, and be absorbed from, the intestinal canal, just as we *do* know that it produces characteric lesions of the glands of this part. Professor Stillé,[1] in writing of the use of calomel in typhoid fever, says that its advantages are recognized by physicians in various countries.

In addition to certain beneficial effects which it seems to exert upon the disease, he states that it "very probably tends to eliminate by the bowels the poisonous cause of the symptoms."

I have had no experience with the calomel treatment, as it is advised by some, of giving the drug in large and repeated doses. If the ten-grain dose does not act, I direct the subsequent administration of some mild aperient to assist it, and a saline is preferable for this purpose, because it excites watery discharges, which are more cleansing.

In order to study the effect of the above treatment I now ask to submit a few cases in which it has been tried.

Case I.—J. R. W——, a robust male, aged thirty-seven, called to consult me at my office on the evening of December 27, 1879. He complained of not having been well for a fortnight past. He was unable to rest at night and had occasional headaches during the day. There had been no diarrhœa, and his appetite had remained good until two days ago. About then it was he first noticed a bad taste, experienced chilly sensations at different times, and became feverish toward night. At the time of his visit to me his pulse was 120, and his temperature 102°. I ordered him to take that night ten grains each of calomel, bicarbonate of soda, and pulverized rhubarb. Told him to remain in bed and I would see him the next morning. December 28th, 11 A.M.: temperature, 101.4°; 8 P.M.: 102.2°. He had had one large natural movement during the night. Took ten grains of ipecac at 1 P.M., and vomited large quantities of bilious matter at four different times. Another stool at 4 P.M. 29th, 11.30 A.M.: temperature 102.4°; 6.30 P.M.: 103.6°. Did not sleep well last night; tongue dry and coated with a white fur; bad taste; thirst; anorexia; chilly sensations. 30th, 11.30 A.M.: temperature, 102.7°; 9.15 P.M.: 101.2°. Another restless night; some headache; nausea; one large natural stool. 31st, 10.30 A.M.: temperature, 99°; 8 P.M.: 100.2°. Slept well; feels better; tongue moist; appetite returning; abdomen slightly tympanitic; meteorism and tenderness in the right iliac fossa. January 1, 1880: temperature, 98°. He had no fever after this. His tongue had almost cleaned off on the 2d. Appetite returned, but no solid food given until the 4th. His temperature was recorded every day until the 10th. On January 2d, 97.6°; 3d, 98°; 4th, 97.2°; 5th, 98°; 6th, 97.4°; 7th, 97.2°; 8th, 97.4°; 9th, 97.4°. Temperature was not taken again until the 14th, when it was normal. He had, at the time, just returned from a short walk and felt exhausted. This was his first attempt to leave his room. During the two weeks succeeding the fever he was debilitated, and had lost thirty odd pounds by his sickness.

Case II.—On November 27, 1881, while attending M. K. H——, then convalescing from typhoid fever, I was asked to see her brother, F. L. H——. He was thirteen years of age, stout and well grown. Had stayed home from school for five or six days on account of feeling tired and aching in his body. Had headaches and was feverish toward evening. His temperature at that time was 101°. He was ordered to bed and quinine given to cinchonism. The next day (November 28th) temperature was 101.2°. The calomel and ipecac powder given. The fever ascended for the next two days, reaching, on the latter, its highest point—103°. It then made the characteristic line of descent, and reached normal on the ninth day after coming under observation, and was afterward subnormal. He had lost as much flesh as his sister, whose attack ran three weeks, and was accompanied by diarrhœa, and later by dysenteric symptoms. Was very weak, and had no disposition to leave his bed. Sat up awhile, for the first time, December 19th, fourteen days after the fever had left. Had a slight return of febrile movement, and was not allowed up any more until December 26th. January 16, 1882, he went out for the first time and took a carriage ride.

Case III.—Mabel D——, aged five, first complained of a headache on Saturday, December 6, 1879. Sunday she lost her appetite, felt chilly, and toward evening became feverish. Monday she amused herself with playthings during the early part of the day, but afterward became dull. Three grains of calomel were given, and they produced two evacuations in the night. Tuesday: Tongue coated; appetite lost. She was given the calomel and ipecac powder, which caused bilious vomiting and two stools. Wednesday morning (the 10th) her temperature was 102°. Five grains quinine ordered. Evening temperature, 103°. On the 11th, 12th, and 13th the temperature was 102.4°, 102°, and 102.4°, respectively. After this date no temperature was taken, which is explained by a foot-note in my record-book, stating that the thermometer had been lost. On the 16th, which was the seventh day after the administration of the calomel and ipecac, there was scarcely any fever, and on the ninth day it had entirely left. The attack, which developed soon after her younger sister had recovered from a well-marked case of typhoid fever, was accompanied by slight diarrhœa, and on the fourth day two rose-spots appeared. Her tongue remained coated for some days during convalescence, pulse kept weak, and at times was intermittent.

Case IV.—Mrs. D——, aged twenty-seven, has been confined to the house for the past six weeks on account of having to nurse two of her children through attacks of enteric fever. She has given birth to five children in rapid succession, and the youngest is now a nursling. On Friday, December 19, 1879, I gave her sufficient

[1] Therapeutics and Materia Medica, vol. ii., p. 779. Fourth edition. Philadelphia: H. C. Lee. 1874.

quinine to occasion cinchonism, but without any effect in relieving her symptoms. She had been complaining for four or five days of chilly feelings and feverishness; pain in her back and limbs, especially after any exertion; bad taste; loss of appetite, and weakness. Her tongue was moist and clean. On Saturday, December 20th, she took ten grains each of calomel and ipecac, which produced free bilious vomiting, and, in the night, a large dark green stool. Sunday there were two more movements from the action of a seidlitz powder taken in the morning. Feels very nervous and anxious about herself. Ordered to bed. The temperature was highest and about the same (102.8°) on the three first days. After the eleventh day it never mounted above 99.6°, except on the fourteenth it reached 100°. Was normal on the twenty-first, and then, for six days, kept slightly above that point. This last elevation of temperature may have been due to the patient having unadvisedly moved herself into an adjoining bed. She convalesced slowly, and solid diet was gradually resumed. Was emaciated and weak, and could not walk across the room for some days after getting out of bed.

Let us look at the result of the treatment in these cases, and also see what claim they have to be considered typhoid.

In Case I. the fever lasted only three days after the ipecac and calomel had been administered. Owing to some negligence quinine either was not given, or else I failed to make a note of it in my record of the case. The patient, a strong and generally healthy man, had resided in Washington a number of years without having shown any susceptibility to malarial poisoning. There are no particular symptoms of typhoid fever presented in this history, either during the development or course of the attack, unless we except the tympanitic distention of the abdomen, and the meteorism and tenderness in the right iliac fossa, noticed on the fifth day. Upon what, then, was the diagnosis based? Almost wholly, I might say, upon the characteristic features presented during the stage of convalescence. *The temperature was below normal for almost two weeks after the fever had left. The fever lasted only five days, was not high, and yet he lost over thirty pounds in weight. He was weak, emaciated, and languid.* Such a picture, to my mind, is as indicative of a convalescence from typhoid fever as, after scarlet fever, the stage of desquamation marks the convalescence of that disease.

In Case II. the fever lasted only six days after the action of the ipecac and calomel. The history of this case develops some stronger diagnostic points. A specific fever: quinine did not arrest it. The attack came on just as the patient's sister was convalescing from typhoid fever. Her attack was well marked, and accompanied by diarrhœa, rose-spots, and delirium. The decline of the disease in his case presented the characteristic fever fall of typhoid. Finally his convalescence was marked by subnormal temperature, emaciation, and feebleness. He was free from fever two weeks before leaving his bed, had a slight relapse, and did not get up again for another week. It was six weeks after the fever subsided before he had regained sufficient strength to leave the house for a ride.

Cases III. and IV. occurred in quick succession in the same household, and were preceded by a typical case of the disease in another member of the family. In fact, if we take into consideration a case which occurred six months before this present outbreak, only three members out of a family of seven escaped having the disease. The first case of the present series developed in the person of Alice D——, aged two years and one month. She was taken with the fever on November 2, 1879, after having had the usual prodromic symptoms. Quinine had had no effect. The severity of her attack, which had not been treated with the ipecac and calomel, presented a marked contrast to the mild symptoms of the two succeeding cases. Her fever lasted twenty-four days, and reached 105°. She had rose-spots, and suffered with a severe diarrhœa—passing from four to eight stools per diem during three weeks of her attack. She lost a great deal of flesh, and her recovery was slow.

The next, Case III., was that of Mabel D——, which began December 6th. Quinine did not arrest the attack. The fever ceased eight days after ipecac and calomel had been given. Had slight diarrhœa, and two rose-spots appeared.

Two weeks after this case had commenced, Case IV. developed. Cinchonism failed to arrest this likewise. Ipecac and calomel administered. A very low range of fever marked the course of this attack; but, with the exception of one day, she was not entirely free of it for twenty-six days. It was highest the first three days, then gradually declined each succeeding day except the eighth and ninth, and after the fourteenth was so slight that it could scarcely be detected without the aid of the thermometer.

If I have given sufficient reasons to justify these cases being diagnosticated typhoid, then certainly it must be admitted that the treatment employed had some effect to lessen the duration, and to alter the course, of the fever. And as this treatment is only applicable to cases that come under observation in the beginning of the attack, the result is even more favorable, because we commence to count the days of fever earlier than would otherwise be the case. I have never succeeded in arresting the fever at once. Dr. Chambers, in speaking about a case (p. 129) in which he had had this happy result to follow, says: "It is now nearly two years since I have had a case of fever so decidedly cut short by an emetic; so do not expect it often. But nearly all have the violence of the disease alleviated by that remedy; so that it is never out of place during the first week of the fever."

That the case should come under treatment in the early part of the attack is, I believe, a *sine qua non* condition of success.

Unfortunately typhoid-fever patients do not generally come into the physician's hands until too late, unless they happen to follow other cases of the disease that are under observation in the same household. As a rule, they first run through the usual list of domestic remedies for biliousness, malaria, indigestion, worms, and a host of fancied maladies before sending for the doctor.

One of the longest attacks of typhoid fever that I have attended was a case in which the ipecac and calomel powder came too late to check it because of the delay in coming under treatment. The patient, Harry A——, a young man aged nineteen years, had been dosing himself for nine days with compound cathartic pills, Dover's powder, and quinine. On January 5, 1882, I gave him the emetic and purgative powder. He vomited two or three times in half an hour after, had a thin, watery movement in one hour, and two hours later another thin, offensive passage. His temperature at the time was 102.4°; and he had rose-spots and gurgling on pressure in the right iliac fossa. The fever continued in this case until the forty-second day, and pursued a very erratic course. It was highest the first week of the sickness. The average was 103.3° per diem during the first week; 102.6° the second week; 100.2° the third week; 101.2° the fourth; 100.6° the fifth, and 98.8° the sixth. The low average for the last week was caused by three subnormal temperatures. The eliminative treatment was employed too late to have any effect in shortening the duration of the attack. But cannot we assume, from the record of the temperature, that the disease was favorably modified thereby? The attack was a severe one, and it is not usual for the fever of typhoid to be highest during the first week. It is improbable to believe that the patient could have recovered if the fever had increased, or even had remained the same, for several weeks succeeding what it was during the first.

But such considerations will involve too much hypothetical reasoning. I have aimed at merely giving a

faithful record of the foregoing cases, to present what claims they have to be considered typhoid, and to demonstrate the effect of treatment in altering their course and in lessening their duration.

CASE V.—Since having written this paper I have had the good fortune to be enabled to test the eliminative treatment in another case of typhoid fever. As it differed in some particulars from any others, I will ask to present a short record of the case.

On Monday morning, December 31, 1883, I was called to see N——, a delicate-looking girl, nine years of age. I obtained from her mother the following history: The child left Danville, Va., and came to Washington to join her family some three weeks before. Two weeks after her arrival she was given a dose of oil, and the next day one of salts, because of a headache that she had been complaining of since before leaving Virginia. She did not improve, and her mother thought she was suffering from "*cold*" or "*malaria*." Thursday evening (the 27th) she first detected fever. The mother then became uneasy, because in July of the preceding summer, while staying in Danville, she had lost one of her children by a fever which was said to have been *malarial* at first, but afterward, as she expressed it, "*it ran into typhoid.*"

She kept the child in bed and administered nine grains of quinine on Saturday, Sunday, and Monday mornings. I first saw her on Monday morning about 11 o'clock. Her face was flushed and tongue coated over its posterior half. Her pulse was 104, respiration 24, and temperature 101.8°. As examination failed to detect any inflammatory cause to account for the fever, and as twenty-seven grains of quinine had already been given, I felt warranted in ordering the emetic and purgative powder.

At 11.30 she took four grains each of ipecac and calomel. Vomited a little fluid and mucus and had a natural movement at 5.30 P.M. At 6 her pulse and temperature were the same. As the powder had acted so slightly it was directed to be repeated at 7 P.M. This time it was with better result—she vomited more freely and had another stool in the night. There was a more or less steady continuation of fever for the next six days. During those days she had epistaxis; several crops of rose-spots; decided tenderness in the right iliac fossa, and some meteorism. Sordes appeared upon the lips; tongue was dry and cracked; bowels regular. Face flushed, and expression dull. On the evening of January 6, 1884, an abundant crop of fever-spots came out over her chest and abdomen, and some on her back. I gave up all hope of any beneficial effect following the administration of the powder, and ordered eight drops of dilute hydrochloric acid every four hours.

I was surprised and gratified the next morning to find the temperature down to 99°. The morning temperature became normal after the 9th; the evening exacerbations were slight for three days longer, and after the 13th both the morning and evening temperatures were subnormal. Sordes soon cleaned off the lips; tongue remained dry and cracked for some days; appetite returned, and bowels constipated. She is now weak and emaciated.

Observations of her temperature during convalescence have been taken daily up to the date of this writing and are: 98.2°, 97.8°, 97.6°, 97.6°, 96.8°, 96.4°, 96.4°, 96.6°, 96.8°, 95.4°, 96.4°.

It will be seen that the subnormal temperature was lowest on the tenth day after all fever had ceased. These observations were carefully taken in the axilla, and the instrument allowed to remain *in situ* for ten minutes.

THE TIME IT TAKES FOR THE PASSAGE OF A PENNY THROUGH THE BOWELS.—Dr. A. Ten Eyck, of De Forestville, N. Y., writes that a girl aged two years, while playing with some pennies, accidentally swallowed one. At the end of six months it was discovered in one of the fecal passages.

Reports of Hospitals.

ST. JOSEPH'S HOSPITAL FOR CONSUMPTIVES, NEW YORK.

SERVICE OF C. M. CAULDWELL, M.D.

TREATMENT OF THE COMMONER SYMPTOMS OF PHTHISIS.

Coughs.—Oxalate of cerium has been used in seventy cases as a cough palliative, and has rendered excellent service in relieving this most troublesome symptom of phthisis. It has one marked advantage over the drugs usually prescribed for the alleviation of cough, namely, that of never disturbing either appetite or digestion. Its good effects were especially noticeable in those cases where severe paroxysms of coughing, with or without vomiting, followed the ingestion of food. Where the cough was troublesome during the day, the drug was given in ten-grain doses every few hours, but if coughing occurred principally at night, then thirty grains were given at bedtime and repeated before morning if necessary. When oxalate of cerium alone failed, the desired effect was often obtained by combining it with chloral hydrate or spirits of chloroform.

Night-sweats.—The following combination of chinoidine and atropine has been used in thirty cases of night-sweats occurring in patients suffering with phthisis in both early and late stages. The annoying and debilitating perspirations were not only controlled during the administration of the drugs, but in a large number of cases did not return after the treatment had been discontinued. The formulæ used were:

℞. Pulv. chinoidin. purif..... gr. xij.
Atropiæ sulphatis..... gr. $\frac{1}{30}$.
M. Ft. capsulæ No. 2.
Sig.—One the first night, and one three nights later.

℞. Pulv. chinoidin. purif..... ʒ j.
Ft. pil. No. 12.
Sig.—One pill every night that the capsules are not taken.

The advantages of this combination over either atropine or quinine, as usually prescribed, are thought to be: (1) the greater permanency of effect; (2) the freedom from unpleasant symptoms often produced by the other drugs; (3) the comparatively small amount of medicine necessary; (4) the very moderate expense as compared with quinine. When this plan of treatment was contra-indicated, or gave only temporary relief, picrotoxin produced excellent results. It was administered in gelatine-coated pellets of one-eightieth to one-fortieth of a grain, at bedtime, and either entirely suspended or greatly diminished the sweating in every case in which it was prescribed.

Diarrhœa.—Of the various remedies tried in the treatment of over seventy cases of diarrhœa in consumptives, bismuth was found the most generally useful. In slight attacks, due to indigestion, etc., it was preceded by a mild laxative and given in twenty- to thirty-grain doses every two hours. In the severe forms of diarrhœa accompanied by symptoms of intestinal irritation or inflammation, a combination of twenty grains of bismuth with one-half grain of opium was given every two or three hours, with satisfactory results in the great majority of cases. A number of apparently hopeless cases entirely recovered from profuse watery diarrhœa when treated with *coto-bark*. The formula used was:

℞. Extr. coto. fl.,
Tr. cardamom. co.....āā ʒ j.
Mucil. acaciæ..... ʒ iij.
Glycerine..... ʒ ij.
Aq.....q. s. ad ℥ vj.
M. S.—Half ounce every hour.

Hæmoptysis.—The following method of using hama-

melis, or morphine and hamamelis, has given much more satisfactory results in the hæmoptysis of phthisis than any other combination of drugs used in this institution. Unlike ergot, lead, veratrum, etc., hamamelis does not disturb the appetite or digestion, but apparently diminishes cough and quiets the nervous system. Severe hemorrhages were treated with a single small hypodermic of morphine, followed by one-half drachm of distilled extract of hamamelis, repeated every half hour. Ordinary attacks of hæmoptysis were controlled by hamamelis alone, given in the same dose, but at longer intervals. Patients suffering from rapidly recurring hemorrhages were promptly rid of their tendency to hæmoptysis when kept upon the distilled extract for several weeks.

Progress of Medical Science.

Poisoning by Creasote and Carbolic Acid.—Dr. Pürckhauer publishes an elaborate account of a fatal case of creasote-poisoning, with the remark that only two cases of poisoning by creasote have been previously recorded. In Pürckhauer's case a child ten days old received, as was computed, twenty-four to thirty drops of undiluted creasote. The symptoms were developed almost immediately, and were very like those produced by carbolic acid; injection and inflammation of all visible parts with which the poison came into contact, salivation, extremely contracted pupils, difficult respiration, imperceptible pulse, coldness of the extremities, profound coma, and loss of reflex activity. The child did not regain sensibility, was convulsed, and died sixteen hours after the administration of the poison. The necropsy showed lesions similar to those following the administration of carbolic acid—corrosion, local inflammation of the alimentary canal, dark blood, injection of the capillaries, and an all-pervading odor of creasote throughout the body. The same author also relates a not unusual case of poisoning by an enema of carbolic acid in water, where insensibility followed almost immediately on the administration. The patient, a girl aged eleven, recovered, the rectum having been very speedily well washed out with warm water, till the washings lost all odor of the poison. Several cases of poisoning by carbolic acid are recorded (*Chicago Weekly Med. Review*, vol. ii., p. 222, 1883), which are noteworthy in their bearings upon the duration of narcosis and the state of the pupils in this form of poisoning. Two children, eight and five years old respectively, each received an enema of a pint of water containing seventy drops of ninety-five per cent. carbolic acid. Five minutes later both fell asleep, and slept for twenty minutes. Waking out of sleep, they talked constantly and incoherently, and walked about in a restless manner. Shortly afterward, their gait became unsteady, and they fell to the floor entirely unconscious, with widely dilated pupils, breath charged with the poison, skin bathed in perspiration, pulse full and frequent; and muscular agitation seemed to threaten convulsions. Two hours later, the muscular agitation subsided, coma supervened, and the children could then be aroused only with difficulty. Six hours after the administration of the enemata the children became conscious, and vomiting set in, lasting for some hours, after which they rapidly recovered. In another case, where the strong acid was swallowed, the patient also recovered consciousness in about six hours; but here the pupils were contracted, as is usual in carbolic acid poisoning, and not dilated, as in the first related cases.

The Distribution of Poisons in the Body.—Bischoff has recently investigated the distribution of poisons in the various organs (*Ber. der Chemie.*, Band xvi., p. 1337), selecting for his purpose carbolic acid, chloride of potassium, the oxaloids, and the cyanides. In the case of a man who had died a quarter of an hour after taking fifteen grammes of a ninety-one per cent. solution of carbolic acid, 242 grammes of the contents of the stomach and small intestines yielded 0.1711 gramme of phenol; 112 grammes of blood, 0.259 gramme of phenol; 1,480 grammes of liver, 0.637 gramme of phenol; 322 grammes of kidney, 0.201 gramme of phenol; 508 grammes of cardiac muscle free from blood, 0.1866 gramme of phenol; 1,445 grammes of brain, 0.314 gramme of phenol; 420 grammes of gluteal muscle, traces of phenol; 125 grammes of urine, 0.0014 gramme of phenol. Thus most of the poison extracted was obtained from the liver, heart, kidneys, and brain. Experiments with chlorate of potash yielded no less definite results, the salt undergoing reduction in the human organism. In the case of a person poisoned by oxalic acid, 358 grammes of the stomach and its contents yield 0.75 gramme of oxalic acid, and a little oxalate of calcium; 412 grammes of liver, pancreas, kidneys, and heart, 0.0135 gramme of oxalic acid, and 0.95 gramme of oxalic acid as alkaline salt; 100 grammes of blood, 0.0467 gramme of oxalic acid as alkaline salt, and traces of calcium oxalate. In other cases, similar results were obtained. In cases of poisoning by hydrocyanic acid, the largest quantity of the poison was found, as might be expected, in the stomach; the liver also occasionally yielded relatively large amounts, and the poison was entirely absent from the urine.

Multiple Cutaneous Ulceration.—In *The American Journal of the Medical Sciences* for January, 1884, Dr. Atkinson records a case closely related to that rare and remarkable disease known as symmetrical gangrene.

The symptoms were briefly a papulation and vesiculation, followed by a very superficial destruction of the epidermic structures and the most external dermal tissue. This was followed, more or less rapidly, by ulceration of progressive character, so that, in the highest degree, in a very short time, not only muscle, fibrous tissue, and cartilage, but even bone was destroyed. At no point was there gangrene in mass, if we may exclude the secondary destruction of bone, but, on the other hand, rapidly progressive and molecular gangrene. This ulceration, while showing a tendency to affect similar parts of corresponding members and regions, could hardly be termed symmetrical. The right side of the face suffered much more severely than the left, while the left upper and lower extremities were decidedly more affected than those of the right side.

The extent to which motion and sensation were impaired was indeterminate. The child lost the power of locomotion, but whether from diminished nerve influence directly, or from increasing general debility, was not evident. Certainly there was no complete paralysis. Similarly with sensation, it was difficult to determine the true condition. That there was abnormal sensation was certain, but whether there was itching or paræsthesia was a matter of doubt. There were no scratch marks, nor was any expression of pain elicited upon handling the parts. On the other hand, there can be no doubt that the sensation of pain was decidedly blunted, as shown by insensibility to quite rough usage, and by the violence with which the child bit and rubbed her extremities, even to the production of lesions and the copious discharge of blood. This bluntness of sensation extended beyond the area of lesions, and amounted to a decided numbness. Distinct symptoms of vaso-motor disturbance were not observed; the description of the mother, however, that the extremities became dry and wrinkled, is of significance, though it must be admitted that this was not observed while the child was under treatment. The color of the child's skin would also doubtless interfere with the recognition of vaso-motor phenomena.

As causes of this remarkable condition, Dr. Atkinson was able to include mercurial intoxication, and that from ergot or other medicaments which occasionally excite

gangrene or destructive ulceration in those into whose bodies such agents have been introduced.

The author thinks there can be no doubt that this disease belongs to the group of affections which the late Oscar Simon first named "multiple arthritic gangrene." According to Simon, it attacks, almost exclusively, children between one and two years old, and begins with vesicles which dry into scabs. These fall off and leave a loss of substance of varying depth, in some cases even reaching to the bone. In all cases, cachexia may be recognized. He regards the process as a gangrene produced by a cachectic thrombosis. It is not unlike the forms of gangrene produced by ergot, morphia, or in the course of diabetes, typhus, or in paraplegics. The prognosis is good. The treatment should be principally of a tonic character.

In the absence of definite knowledge of the pathogenesis of these and kindred lesions, and in view of the unmistakable vaso-motor disturbances observable in the more pronounced forms of the affection known as symmetrical gangrene of Raynaud, Dr. Atkinson thinks we can do no better than provisionally accept the theory of Weiss, according to whom the disease is a neurosis, in which the vaso-motor centre is, from whatever cause, readily thrown into a state of hypertonus; the importance of the symptoms depending upon the dignity of the parts upon which the vascular spasm is developed. Contraction of the cutaneous arteries will produce a bloodless condition of the skin. By venous spasm is produced local cyanosis, and by contraction of vaso-dilators local active hyperæmia. Similarly, by vascular spasm of those portions of the posterior columns standing in functional relation with the skin, will be produced, nutritive disturbances of the skin and epidermic structures.

THE VISUAL AREA IN THE BRAIN.—Recent research in cerebral physiology has been directed toward the subject of the localization of sensory areas on the cortex of the brain, and has been productive of many very interesting discoveries. The investigations of Wernicke and Stilling in the anatomy of the brain, and the observations of numerous pathologists in cases of hemianopsia have confirmed in such a striking manner the conclusions of the physiologist Munk regarding the cortical area governing vision, that a summary of the facts, made by Dr. M. Allen Starr, in the January number of *The American Journal of the Medical Sciences*, deserves attention. A knowledge of these facts is necessary both for the exact examination of cases and for an accurate record of autopsies, as it seems probable that many errors in the past have been due to the imperfect investigations of symptoms and of lesions.

From an analysis of thirty-two recorded cases with autopsies, Dr. Starr reaches the following conclusions regarding the pathology of hemianopsia:

Later homonymous hemianopsia may be produced not only by a lesion of one optic tract, but also by a lesion situated either in the pulvinar of one optic thalamus, in the posterior part of one internal capsule or its radiation backward toward the occipital lobe, in the medullary portion of the occipital lobe, or in the cortex of one occipital lobe. Extensive or multiple lesions involving two or more of these portions of the brain produce the same symptom. Hence, a lesion in the course of the optic fibres of one side, at any point between the optic chiasm and their termination in the cortex of the occipital region, produces partial blindness of both eyes. It is, therefore, justifiable, to conclude that the occipital lobe of each side is in anatomical and functional relation with both eyes; in such a manner that the like-named sides of both retinæ are connected with the like-named hemisphere, *e.g.*, the right sides of both retinæ with the right hemisphere, and *vice versâ*. When a lesion of one hemisphere involves the optic fibres, at any point, partial blindness of both eyes, and not blindness of the opposite eye, is produced.

Any form of brain lesion, abscess, embolic softening, hemorrhage, tumors, chronic meningitis, if located in the course of the optic fibres or on the surface of one occipital lobe, may produce hemianopsia. The symptom is not due, therefore, to the shock of an apoplexy or embolism; nor to an increase of intracranial pressure; as cases occur in which neither of these conditions is present. It must, therefore, be regarded as a symptom indicating a local circumscribed lesion of one hemisphere, and not a general symptom (such as headache or coma) of brain-disease.

A study of the cases cited leads to the inevitable conclusion that the visual area lies in the occipital region, that the symptoms other than visual cannot be referred to any lesion except to that of the occipital lobe, and that the right occipital lobe receives impressions from the right half of both eyes, and the left occipital lobe from the left half of both eyes.

With these facts in view the question arises, Are there any means of locating the lesion present in a case of hemianopsia? Reference is here made to lateral homonymous hemianopsia. All other forms are due to a lesion of the optic chiasm or optic nerve. A review of the cases and a comparison of symptoms with lesions will demonstrate that this is impossible. The lesion producing the hemianopsia may lie at any point in the course of the optic fibres from the chiasm to the occipital cortex, and in all cases the character of the hemianopsia may be the same. It is only from a study of the accompanying symptoms, therefore, that the lesion can be located. But each of the other symptoms may be due to lesions situated at various points. If it can be proven from a study of the other symptoms that the lesion must be in one definite position, and at the same time a lesion in that position would intercept the visual tract, a probable diagnosis may be reached.

ON THE TREATMENT OF HAY FEVER AND ALLIED DISORDERS.—In a paper on this subject in *The American Journal of the Medical Sciences* for January, 1884, Dr. Harrison Allen claims that the means of effecting the cure of this hitherto considered incurable disease is simply to overcome the tendency to obstruction in the nasal chambers.

The symptoms of hay fever are always associated with some degree of obstruction of one or both nasal chambers. A cause of this obstruction is dilatation of the blood-vessels. There is no doubt that the local phenomena are in most instances the same, and that the multiform related symptoms, such as injection of the eye, headache, malaise, asthma, etc., are due to reflex vaso-motor disturbances. But many patients report for treatment who exhibit swelling of the nasal mucous membrane, occlusion of the respiratory passages, and mucoid or semi-purulent discharge, without any of the related reflex phenomena. Yet a third and intermediate group exhibit perhaps a tendency to turgescence of the mucous membrane, together with one or more of the more common constitutional symptoms of typical hay-fever. Indeed, there is nothing peculiar to the disease just named save its sharply defined periodicity, particularly in that phase of it where the periods of recurrence happen to coincide with the time of fruitage of certain plants, or the gathering of certain crops. In a small group of cases, where, in addition, other signs and symptoms become prominent which would invalidate the above proposition, Dr. Allen is inclined to attribute them to mental impression—in some of the varied phases of hysterical or neurotic excitement.

Or the case may be stated in different language, as follows: In an imperfectly defined group of cases of nasal catarrh, a sensation of sudden obstruction of one or both nasal chambers is a conspicuous symptom. This sensation is accompanied by a constant change in the chambers themselves, viz.: engorgement of the membranes over the turbinated bones, producing pressure against the septum

and occlusion of the respiratory passages of the nose. The sensations are recurrent, but vary greatly as to the time of the day or the season of their return. With some patients they are nocturnal, and are associated with the recumbent position; with others they occur after meals only; with some they occur in the summer season; with others, yet again, in the winter. The sensations may be confined to either chamber, or be present in both. In aggravated cases they are associated with numerous reflex symptoms, among which may be mentioned lachrymation and hyperæsthesia of the conjunctiva, headache, and asthma. Patients having a disposition to obstruction during the summer and autumn report themselves as suffering from "hay-fever;" while those having alternating attacks in the right and the left chambers report with "nasal catarrh." The cases so far studied exhibit one feature in common, viz.: that the inferior turbinated bones lie well above the plane of the floor of the nasal vestibule. In many persons, not the subjects of "hay-fever" and allied disorders, the lower free portion, including, of course, the inferior border of the bone, lies below the plane of the floor of the nasal vestibule, and in ordinary inspection the inferior meatus is out of sight. It will thus be seen that the mucous membrane, which is known to be the most erectile, is also the most exposed to irritation from extraneous substances, and to changes in the temperature of the surrounding air. The conclusions to be drawn from the study of the six cases reported by Dr. Allen may be summarized briefly as follows: 1. That the treatment of all conditions of obstruction in the nasal chambers, no matter from what cause arising, can be successfully carried out by destroying the causes of obstruction. If the cause be an overgrowth of bone-tissue, it must be filed, sawed, or drilled away. If it be caused by a deviated cartilaginous portion of the septum, such portion must be reset in a new place. If, as is often the case, it is due to periodic turgescence of the mucous membrane or the resulting secondary hypertrophies, such growths must be destroyed, either by the galvano-cautery, by the snare, or by caustic acids. 2. That the treatment of hay-fever and allied periodically recurring nasal affections in no way differs from the treatment of other nasal diseases accompanied by obstruction, and that the treatment may be conducted during an attack as well as in the intervals between any two attacks.

The Absorption of Fat in Fever and Apyrexia.—The influence of the febrile state upon digestion is not yet fully known. A recent contribution to this subject has been made by a Russian physician, Dr. Tchernoff. From a series of observations on the assimilation of fat the author has come to the following conclusions (*St. Petersburger Inaugural Dissertation*, 1883): 1. A healthy subject assimilates about ninety to ninety-four or ninety-five per cent. of fat of the food given, provided it be present in a form suitable for the action of bile and pancreatic juice. 2. A subject suffering from febrile disease, as a rule, assimilates lesser quantities of fat than the same subject in a healthy state, the difference being on an average 7.2 per cent. 3. The single deviation from this rule is given in enteric fever. When suffering from the latter, the patient absorbs more of fat than when he is reconvalescent, or quite well. This is especially true in regard to severe forms of typhoid. According to the author, the fact of fat being better assimilated by typhoid patients finds its explanation in the presence of great numbers of leucocytes in the intestines in cases of enteric fever. As a recent work of Professor F. N. Zawarykin shows, leucocytes are "true absorbers and distributors of fat." 4. The quantity of absorbed fat, and the percentage proportion of it in fæces, are influenced by the quantity of fat in the food daily taken, by the individuality of the patient examined, by his general state at the time of examination, and, possibly, by the admixture of carbohydrates and albuminoid matters. 5. There exists no difference between adults and children in regard to all the propositions stated above. 6. Febrile patients, though their faculty of the absorption of fat is diminished, still assimilate fat in considerable quantities (from eighty to ninety per cent.). Therefore, any fears entertained against the administration of fat to febrile patients are groundless. Any avoidance of fat in febrile diet would be unjustified: fat is as necessary for the diseased as it is for the healthy.

Rheumatism and its Allies in Childhood.—Dr. Thomas Barlow thinks that it is impossible to define systematically what is meant by rheumatism, and at present it is best to agree on what we consider to be a typical case of rheumatic fever, and to study the subsequent relapses, sequelæ, and recurrences of that affection. Attention is drawn to an affection about which there is great difference of opinion—viz.: scarlatinal rheumatism. Rheumatism is often spoken of as a sequela of scarlet fever, but it is more often a complication than a sequela. Often in scarlet fever swellings in the sheaths of the tendons are noticed, and joint-structures become implicated; these symptoms subside very rapidly under the influence of salicylate of soda. In rare cases the effusion in one joint at least becomes purulent. There is also in scarlet fever sometimes an affection of serous membranes parallel to what is found in rheumatic fever, but in scarlet fever these effusions often become purulent. Speaking of skin-lesions in relation with rheumatism, the author does not consider that erythema nodosum is closely related to rheumatism, much less convertible into it; but with regard to erythema marginatum and erythema papulatum, there seems more satisfactory evidence to prove that they are related to rheumatism. Urticaria and purpura are in rare instances also related to rheumatism. Dr. Barlow thus sums up his remarks on the relation between chorea and rheumatism: 1. Chorea should be looked upon as a symptom rather than a disease. 2. We are no more justified in saying that chorea is always rheumatic, than in saying that delirium and hyperpyrexia are always rheumatic. 3. Chorea occurs so frequently in connection with rheumatic symptoms, both in combination and in alternation, that we are justified in provisionally regarding it as itself often a rheumatic symptom. Salacin compounds are not often of much use in the rheumatism of infants, as these compounds are most useful in cases of joint-effusions with pain and fever; whereas a great deal of the rheumatism met with in children is insidious, being attended with ill-defined joint-affection, slight pain, and fever.—*London Medical Record*, December 15, 1883.

Acute Pneumonia.—The report of the Collective Investigation Committee on pneumonia, although only provisional, contains a great deal of interesting matter, and is based on an analysis of 350 cases. The general result of the pathological inquiry is thus summarized: "We think the evidence before us is insufficient to support the doctrine that pneumonia is a specific fever, whose chief local manifestation is in the lung. Like other respiratory diseases, we find it prevailing in certain states of the weather; and, apart from all else, the great regulator of its frequency is season. It may be taken for certain that it confers no protection upon the individual, but rather an increased liability to future attacks. It appears to have no direct association with any specific or conveyable disease, and its near alliance with tonsillitis is in striking contrast with its unfrequency in connection with diphtheria. Instances of pneumonia undoubtedly occur, which are apparently 'pythogenic;' but those which have this origin are not otherwise separable, so far as we see at present, from others which are obviously due to exposure. Epidemic pneumonia, as judged of by the cases we are now reporting on, is in part explained by atmospheric conditions, and in part by other agencies generally prejudicial to health."—*British Medical Journal*, December 1, 1883.

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RECENT DEPARTURES IN THE TREATMENT OF PHTHISIS.

IT is not many years since Dr. Hughes Bennett stated with emphasis that all attempts to treat phthisis locally had proved a failure. In saying this he undoubtedly expressed the opinion very generally held at that time.

Since the attempt was initiated by Koch, however, to establish phthisis as a parasitic disease, its therapeutics have been studied from a new standpoint, and there are now two distinctive schools of workers. The one is laboring to find some means of checking phthisis by destroying its supposed parasitic cause; the other still maintains that a constitutional dyscrasia is the main thing for the therapeutists to consider, and that attempts to treat this disease by directly destroying the bacilli are futile and impracticable. The profession in general is still in harmony, and properly, with this latter view.

One of the leaders among those who deny the value of the antiseptic treatment of phthisis is Buchner, who has formulated his views very clearly. An infectious disease (and phthisis in most of its forms is surely that), says Buchner, is a battle between the body-cells and the micrococci. The result is inflammation and fever. The therapeutist may help the organism in the contest by strengthening the force of the cells, but he cannot destroy or weaken the micrococci without equally injuring the tissues within which they are imbedded. Hence, in phthisis, he recommends nutritive stimulants, not antiseptics. Among the best of these stimulants, he believes, is arsenic, and this drug seems likely to be brought forward again into prominence in the treatment of phthisis.

Arsenic is by no means a new remedy in this disease. It was recommended by Dioscorides centuries ago. It was again recommended by Beddoes early in the present century. Trousseau used it on a large scale, as did also Hérard, Moutard Martin, and several other French physicians. It has not been largely tried by English observers. Drs. Sanger and Leared commend it, while Williams, Ringer, and Phillips speak of its value in qualified terms. Dr. Bartholow says that we have no single drug of equal utility in the chronic forms of phthisis, but it is not serviceable in caseous pneumonia.

Following the suggestions of Buchner, Drs. Kempner and Zadeck, of Berlin, have lately employed arsenic in a small number of cases with good, though not brilliant results (*Wiener Med. Wochenschr.*, No. 4, 1884), while Stentzig, of Munich, was less successful. At the recent meeting of the New York State Medical Society, Dr. A. Jacobi (vide page 199) expressed a favorable opinion upon the action of the drug, and in the discussion upon his paper, Dr. Drake said that arsenic was much used in Bellevue Hospital in chronic phthisis.

It is plain that the exact value of this drug has yet to be determined. That it is of some potency is unquestionable, but it seems to be only a symptomatic remedy, relieving cough and fever, increasing the appetite and bodily weight, without much improving the local pulmonary lesions. Trousseau insisted that if it did good it would do so at once, and, furthermore, that it was rather a conserver of tissue than a stimulant to growth.

As regards the anti-parasitic treatment of phthisis some important work has been done.

It has been shown by a number of persons that the tubercular virus is not destroyed with the same ease as the septic germs. According to Parrot and Martin (*Rev. de Méd.*, No. 10, 1883), sublimate solutions (1 to 1,000), salicylic acid solutions (1 to 500), carbolic acid solutions (1 to 20), resorcin, solutions of bromine (1 to 1,000), and oxygenated water, do not destroy the infective power of the tubercle virus; a temperature of 100° to 120° C. was, however, sufficient. Dr. Niepce has recently announced (*La France Médicale*, No. 14, 1884) that sulphuretted hydrogen is a destructive agent.

As an anti-parasitic remedy in phthisis, iodoform has perhaps attracted most attention. Professor Semmola was one of the first to call attention to the value of iodoform in phthisis. His recommendations were quickly followed by a number of other Italian physicians (*Lo Spallanzani*, January and February, 1883). It was stated that incipient phthisis was very often cured by it, the drug acting as an "alterative," antiseptic, and anæsthetic. Dr. Dreschfeld, in 1882, reported good results from iodoform, and repeated his commendations of it a year later (*British Medical Journal*, April 28, 1883). But the first one to use iodoform efficiently as a direct local antiseptic was Sormani, who has published his results in the *Annal. Univers. di Med. e Chirur.*, September 8, 1883. It must have been apparent to any one having even an elementary knowledge of physiology, that the attempt to destroy germs in the lungs by ordinary inhalations or sprays is utterly irrational and useless; for inhaled fluids are only carried a short distance into the bronchi, and never reach the alveoli at all. Sormani, having this fact in view, devised an apparatus for carrying by means of compressed air an ethereal solution of iodoform deep into the lungs. That the drug was thus carried even to the alveoli he proved by inhalation experiments upon calves. Sormani reports only three cases of phthisis in the second stage treated by his method. In each instance there was immediate improvement in the symptoms, and marked gain in bodily weight. On the other hand, there was no especial change in the local tuberculous processes. The sputa also continued to contain bacilli, though in smaller numbers. The sputa injected into guinea-pigs appeared to be lessened in virulence, but was still actively infective.

From a review of the foregoing, it will be seen that the antiseptic treatment of phthisis has yet to gain a foothold in therapeutics. While inhalations may occasion-

ally do some good in relieving symptoms and lessening the complicating bronchitis, we must still use our strongest efforts to help the cell rather than to kill the bacillus.

LOCAL ASPHYXIA AND PALUDAL GANGRENE.

THE influence of paludism in producing local asphyxia and gangrene has recently been the subject of a series of very instructive papers, by MM. Petit and Verneuil, in the *Revue de Chirurgie*, Nos. 1, 3, 6, and 9, 1883. Local asphyxia, stasis of blood in the capillaries, is a phenomenon attending every febrile paroxysm, and may in some cases acquire considerable gravity. As a matter of course, it is to the vaso-motor and vaso-constrictor system that we must look in explaining the various degrees of oligæmia, ischæmia, and capillary stasis observed in the first stage of paludal fever, and in certain affections of paludal origin. The muscular system being under the control of the nervous system, the vascular apparatus is modified in consequence, and the anatomical elements and tissues are affected.

The vascular spasm presents itself in two different ways; sometimes the peripheral capillaries are almost completely exsanguinated, and the skin is pale; again the whole surface of the body, especially the nose, ears, fingers, and toes are livid, showing the state of stagnation and non-oxidation of the blood in the smaller capillaries. With a high degree of these two morbid states of syncope and asphyxia local gangrene occurs. Of local syncope, however, we shall say nothing at present. As regards local asphyxia, it may be contemporaneous with the febrile access, or it may be chronologically independent. In the first case the circulatory troubles precede the sensations of chill, or coincide with them, or they appear during the sweating stage. In the second, ischæmia succeeds the fever, replaces or alternates with it, but itself is apyretic. It may appear in subjects who have had attacks of intermittent several years before, more or less intense and rebellious.

In studying the pathogenesis of paludal ischæmia it is not difficult to recognize the combined action of the nervous system, and the contraction of the vascular walls in producing these circulatory troubles, and to see in them a simple prolongation or exaggeration of the initial stage of the febrile access, or the cold stage. But it is necessary to inquire why this stage, ordinarily short, should persist for so long a time in certain cases, and appear isolated in others, without fever or sweating. As in other questions of pathogenesis, an explanation is almost impossible. It should be remembered that as compared with the great frequency of intermittent affections, local asphyxia is very rare. In a paper on paludal neuralgia, Verneuil has said that three causal elements were probably necessary: paludism, as a poison or dyscrasic agent, rheumatism or arthritism as a constitutional agent, and cold, humidity, or sudden changes of temperature as meteoric agents. In all probability this remark is applicable in the consideration of paludal asphyxia, and from the great rarity of true local asphyxia we may suppose the necessity of a complex association of pathogenetic agents. The local influence of cold is often observed, as is the influence of the very variable constitutions of the subjects affected. Paludal poison seems never of itself to produce local asphyxia, for the latter is very rare, and is never seen in the epidemic state; very exceptional in the first stages of paludal intoxication, it is only seen in chronic sufferers, or in the victims of rebellious or violent fevers.

In 1859, Moutet reported a case of gangrene of the penis caused by intermittent fever, and quotes the two cases of sphacelus of the penis reported by Marjolin, Moutet concludes his paper with the observations that this gangrene is one of the phenomenal expressions of the pernicious character of the fever, and that its tendency is to invade peripheral rather than deeper parts. Since 1860 many cases of gangrene of various parts from paludism have been recorded by foreign observers, and it is not a little singular that no more attention has been paid to the subject in our encyclopædic works. The remark of Rondot, however ("Thèse," 1880), that paludal intoxication is not a well-recognized cause of gangrene, seems a little premature. But little seems to be known of the subject; and the rôle of paludism in the pathogenesis of gangrene, the forms and prognosis of the affection, are still hypotheses.

As regards form, paludal gangrene is either associated or independent, secondary, or primary. The associated or secondary form follows wounds, or local injuries, the various phlegmasiæ, and certain cutaneous affections. Obédénare reports a fatal case of gangrene of the genital organs in a girl of six years, following traumatism during paludal splenitis. Similar cases are reported by Anguiot, Moutet, and others. Comaneano, an assistant surgeon in the Turco-Russian war, mentions the frequency of wound complications in paludal subjects. Of thirty wounded, of which he had charge at one time, twenty-two recovered without accident; in eight, however, the wounds showed a marked tendency to phagedæna and gangrene. The eight were all old subjects of paludism. The smallest wounds are sometimes sufficient to cause gangrene in these subjects. Verneuil and Petit state that Haspel has abandoned venesection in intermittents because the resulting wounds were so liable to become inflamed and take on a gangrenous process. We may remark that rational therapeutics and common sense should have forestalled the lesson taught by gangrene in his cases. George Yeates Hunter has observed that ulcerations after hypodermatic injections of quinine in intermittent fever are extremely frequent. The late Dr. F. D. Lente has reported similar observations. We can only recall one instance of ulceration in our own experience after such an injection, which was in the case of chronic paludism, though it is well known that such ulceration after the injection of quinine is quite common, unless the water be boiled while making the solution *on the spot*.

Paludal gangrene presents, as regards its situation, two important characteristics: it more often attacks the terminal extremities of the members, fingers, toes, the salient points of the head and the male genital organs; it is almost always symmetrical, and when attacking median organs, usually invades both sides. These two characteristics are especially seen in cases of spontaneous gangrene, but are absent when there is a complicating previous pathological state, as traumatism or inflammation. The seat of the process is often determined by the previous state of the organ, conformably, as it would seem, to the theory of least resistance. Be

side the symmetrical and unilateral forms, Graefe and Moty have described a variety of gangrene occurring in irregular patches (en plaques).

There is nothing which would warrant us in attributing a particular symptomatology to paludal gangrene; the symptoms vary according to the relation in which the sphacelus stands to the febrile attack, or according as there is some pre-existing disease, as bronchitis, pneumonia, etc. It may be said to manifest itself under three sets of conditions: 1, during the course of intermittent fever; 2, in subjects of former chronic paludism, but for some time exempt from an attack; and, 3, in such cases as are included under the second head, but attacked by a disease in the course of which there may be fever. In the first and third cases it is seen that there is a febrile movement; in the second, there is no elevation of temperature. The latter, though, is very uncommon, for the reason that gangrene, as other affections occurring in paludal subjects, is extremely liable to awaken the sleeping enemy and bring on an attack of intermittent. The temperature may be normal, subnormal, or febrile during the gangrenous process. The state of the sensibility is very variable and seems to be independent of the febrile phenomena. Pain is not always present, but when it is, cannot always be made to disappear by quinine. As to its progress, the gangrene may be continued, remittent, or intermittent, and, as is the case with other forms of dry gangrene, is usually circumscribed. Coincident with the peripheral disorders there may be attacks of cerebral apoplexy, as in two cases reported by Larché and Moty.

The duration of the disorder varies with its volume and the number of parts attacked. A grave form of gangrene of the mouth, or phlegmonous gangrene in a cachectic subject, may terminate in a few days. When peripheral organs of small volume are attacked by the dry form, the duration is regulated by the rapidity with which the eschars fall and cicatrization takes place. There being, as already stated, a marked tendency to circumscription, the usual termination of paludal gangrene is in recovery, but death seems to be the rule in noma, and in anginous and pulmonary gangrene, and is rather to be attributed to the intense fever, the visceral lesions, and other complications, than to the gangrenous process itself. As a rule, it is not difficult to diagnosticate this gangrene. Nevertheless, in cases of prolonged ischæmia or of local asphyxia, the diagnosis may remain doubtful for some time. The determination of the paludal nature of the affection, however, is not always without difficulty. Because there is a history of malaria at some previous period, we are not certainly justified in ascribing the affection to a paludal origin; but if the subject is young, a male, and has already had attacks of fever; if the gangrene is symmetrical and peripheral, dry and circumscribed; if preceded by more or less prolonged, circulatory troubles, and is intermittent or remittent, the diagnosis may be considered established. And in any doubtful case the diagnostician should bear in mind the hybrid nature and protean forms of malaria. Of course there will be no little difficulty in establishing a diagnosis when diabetes or alcoholism complicate the paludal intoxication. The close relation between paludism and diabetes has been frequently pointed out, and the occurrence of sugar in the urine of paludal subjects attacked by gangrene is far from rare. Besides diabetes, alcoholism, atheroma, cardiac, renal, and pulmonary affections may cause such general or local modifications as to favor gangrene.

The prognosis of paludal gangrene is generally favorable, though some cases prove fatal. Our main therapeutic reliance is in arsenic and quinine, with local treatment. Exposure to cold increases the liability to an attack. The pain is, of course, to be controlled by opium. The indications for surgical intervention are the same as in gangrene from any other cause. When occurring in the mouth, antiseptic injections—subcutaneous or submucous—should be resorted to, as there is reason to believe that in this locality the affection is of bacterial origin.

THE ORIGIN OF THE NORMAL PERCUSSION NOTE OF THE THORAX.

NUMEROUS theories have been advanced respecting the manner in which the normal percussion note is produced in the chest. Some writers, among whom are Williams and Mazonni, have referred the sound to the vibrations of the thoracic walls. Others, as Skoda and his followers, believe it to be produced in the air contained within the lungs, while Nintrich regards it as arising in the pulmonary tissue itself. More recently, authors have been inclined to regard the percussion note as resulting from the combined effect of all these factors. Dr. Raimondi Feletti has recently published the results of a number of experiments undertaken by him to further elucidate this interesting subject (*Revista Clinica*, Nos. 7 and 8, 1883). He endeavored, as far as possible, to separate the three above-mentioned factors, and to determine the share of each in the production of the sound in question.

He concluded that the thoracic percussion sound is caused, primarily, by the vibrations of the chest-wall, or rather, of the ribs, intensified by the synchronous agitation of the air within the lungs. The action of the pulmonary tissue itself is only to disturb the regularity of these consonant vibrations, especially those of the air contained within the lungs, and thereby to modify the note of the percussion sound. This modified sound, then, is the normal percussion heard over healthy lungs, and physicians are familiar with its still further modification in the various abnormal conditions brought about by disease.

THE SECOND SOUND OF THE CAROTID ARTERY.

THE assertion, first made by Weil, that the second (arterio-systolic) carotid sound was caused, in part at least, by the closure of the pulmonary valves, and was not to be regarded wholly as the transmitted aortic second sound, has received little or no mention, even in the most recent works on this subject. Weil based his theory upon the known transmission of the murmur of pulmonary stenosis, and also upon the (not constant) increase of the second carotid sound in the case of increased intensity of the second pulmonary sound. Dr. C. Bettelheim, having made a number of observations to determine this point (*Centralblatt für Klinische Medicin*, No. 47, 1883), now announces the same conclusions. In several cases in which the diastolic sounds differed in intensity and *timbre* at the two orifices, the

second carotid sound corresponded with that at the mouth of the pulmonary artery, or apparently resulted from a mingling of the two sounds. In one case, particularly, of aortic insufficiency, in which there was a disastolic murmur, he heard two clear tones over the carotid. The existence of the second carotid sound in the case of aortic regurgitation is to be explained, he says, by the fact that in such cases the second sound is transmitted into the carotid from the pulmonary valves.

THE NEED OF NEW PARKS FOR NEW YORK CITY.

We have received the report of the Commission appointed to select and locate lands for public parks in New York.

It is now twenty years since Central Park was created, and since that time the population of New York has increased by a million of souls. The area of public land to each inhabitant is therefore six or seven times smaller in New York City than in all other great cities, as may be seen by the following:

	Population.	Park acres to each inhabitant.
New York.....	1,500,000	$\frac{1}{1363}$
Boston.....	400,000	$\frac{1}{150}$
Chicago.....	600,000	$\frac{1}{200}$
Philadelphia.....	900,000	$\frac{1}{200}$
London.....	4,500,000	$\frac{1}{300}$
Paris.....	2,250,000	$\frac{1}{18}$

No large city in the world is increasing in size more rapidly than New York, which doubles its population every seventeen years. Hence, every year the provision for more parks becomes additionally necessary.

It is proposed to add three large parks and several smaller ones to those already possessed by the city. The total area of these additions is 3,808 acres, which will make the entire park area of the city nearly 5,000 acres, or about one acre to every three hundred inhabitants. Even with this supply, therefore, we shall be behind most other large cities.

The main advantage in these proposed parks, from a hygienic point of view, will be their effect in drawing the centre of population upward and relieving the fatal crowding which is now the curse of our city. In the Fourth Ward of this city, the population is packed in at the rate of 240,000 per square mile, and the Sixth, Eleventh, and Seventeenth Wards are nearly as crowded. There is nothing like this elsewhere in the world. Forty thousand persons die in New York City during the year, and nearly one-half of these are young children, while in other cities, with a smaller general death-rate, the proportion of children's deaths is only one-third.

We welcome, therefore, any measure which will help to remove this stifling pressure that breeds both death and vice, and trust that New York will soon have the proper proportion of breathing space for its people.

COLLECTIVE INVESTIGATION OF DISEASE.

The Medical Society of the County of New York made a new departure at its recent meeting by inaugurating a method of collective investigation of disease. This is certainly a movement in the proper direction and promises useful and practical results. It has been tried with success by the British Medical Association, and has been imitated to some extent on this side of the Atlantic, notably by the Medical Society of New Jersey. We have always considered that in the latter society the reports from the committees of investigation from different counties were the most instructive and practical of any presented at the session. There is no reason why this should not be the case with the new work of the County Society. In order to develop a proper interest in the discussions great care should be taken in the selection of a subject. It should have a wide practical bearing and be within the range of the experience of the general practitioner. The chosen topic hardly meets these ends. Still it may do to start with.

The questions are few and simple, and although not many can answer them, they give an earnest of a system of inquiry and method of pointing a discussion which cannot be too highly commended. It is to be hoped that the members will do their best, even with what they have, and thereby properly initiate a movement which may be followed by other sister societies.

A FRAUD IN TARTAR EMETIC.

The French journals call attention with much indignation to certain systematic adulterations in tartar emetic which have been of late years made. It appears that the manufacture of tartar emetic on a large scale was begun in France many years ago. The drug was sold at five francs per kilogramme. The Germans subsequently took up the manufacture and sold it for three francs, thus destroying the French industry.

But now it is announced by both German and French authorities that this cheap German tartar emetic contains from 41 to 46 per cent. of oxalic acid, and is nearly as much an oxylate as a tartrate of antimony and potassa.

In the doses ordinarily given the oxylate may not be dangerous, but the medicinal effects are different, and it is wisely urged that pharmacists look to their stock of tartar emetic, and see whether it be as pure as is supposed.

News of the Week.

The Meharry Medical Department of the Central Tennessee College, in Nashville, has just graduated eight colored physicians. Thirty-five young negro men had previously been graduated from this school, and it is stated that they have been successful in their work and have been well received and aided by the resident white physicians.

The Medical License Bill, introduced into the Virginia Legislature, has been passed and is now the law of the State. We have given its main features.

The Surgeon-General of the Marine Hospital Service.—Dr. Hamilton appeared before the House Committee on Public Health recently, to answer certain charges preferred against him by Col. Waring, Secretary of the National Board of Health. He not only vindicated himself and his service, but preferred counter-charges which apparently will leave some members of the National Board in an awkward position.

A new United States Marine Hospital.—A bill has been introduced in the House by Mr. James, of New

York, providing for the purchase of property on Staten Island for marine hospital purposes, and another by Mr. Young, of Tennessee, for the completion of the marine hospital at Memphis.

THE ORIGIN OF THE EGYPTIAN CHOLERA EPIDEMIC.—The U. S. Consul-General at Cairo has sent to the State Department a carefully prepared account of the epidemic of cholera which appeared last year in Egypt. He attributes its origin to the unrestricted intercourse with India allowed through English influence. Thus he writes: "During the months of May and June of last year there was at Bombay and Calcutta a recrudescence of cholera, which had the tendency to assume an epidemic form. The sanitary maritime and quarantine council at Alexandria, having been apprised of the impending danger, and energetically pressed by the Turkish sanitary authorities at Constantinople, proposed some measures and quarantine regulations to be applied to all vessels coming from India. But the English Government, whose influence in Egypt is unlimited, has in several ways prevented the execution of the projects of the above mentioned council of Alexandria, and in consequence every vessel arriving from India had free communication with all the ports of the Suez Canal. This unrestrained and direct communication of Egypt with countries in which cholera prevailed was the real cause of the importation of the disease. Another, and a local cause of the development of this malady and of its rapid spread, was occasioned by the following circumstances. Damietta, where the cholera last year first appeared, is an exceedingly unhealthy town. The exhalations there from decaying matter cause every summer ophthalmia and dysentery. It is also subject, during spring and summer, to the *khamsin*, a most oppressive hot wind, which carries with it clouds of dust and sand. When the cholera, which according to the official report, appeared at Damietta on the 21st of last June, in a very short time it soon became epidemic. No remedies were employed. There was a thorough absence of medical attendance, and the poor natives, not knowing how to treat it, obstinately abandoned themselves to faith, and perished by thousands. About the middle of last June a great fair was held at Damietta, which attracted over fifteen thousand visitors from neighboring and distant villages. At the time this fair was held several Hindoos visited Damietta for purposes of trade, and also a certain number of coal-men and firemen, employed on English steamers coming from Bombay. According to authentic sources of information these are the circumstances which favored the rapid development of this insidious disease."

THE NEW YORK MEDICAL UNION.—This is an old Society with a new name. The East River Medical Association, having reached its majority nearly, believes that it has outgrown an apparently local name, and has adopted the above. "May it long live and prosper."

MEDICAL PARIS.—At the meeting of the Academie des Sciences, January 21st, M. Gosselin criticised *Bert's method of giving chloroform*. He thought the apparatus cumbersome and unnecessary. At the same time the scientific facts presented by Bert were of great value. M. Bert defended the utility of his apparatus (which resembles that of Clover) and said that cheaper and more convenient ones were now being made. M. Chauveau described his method of cultivating and *attenuating virus*. At the meeting January 28th, M. Charcot presented a note by MM. Lépine, Eymonnet, and Aubert upon the proportion of incompletely *oxidized phosphorus in the urine* in certain nervous states. An increase of excreted phosphorus had been noted in apoplectic and epileptic attacks. A similar increase had been observed in fatty degeneration of the liver in phthisis, in pernicious anæmia, jaundice, typhoid fever, and acute pneumonia. This increase in the urine of partially oxidized phosphorus did not indicate necessarily an increased disassimilation of nervous tissue.

MEDICAL VIENNA.—At the meeting of the Society of Physicians, January 25th, Professor Carl v. Braun, presiding, Professor Ludwig read a paper written by Dr. George Papasissis, of Athens, in which was described *the most specific of all methods of treating diphtheria*. Of forty-two cases treated by this method only three died. It consisted in the internal administration of the following: ℞. Liquor ammonii caustici, ♏ x. to xij.; aquæ destillat., ʒ ijss.; syrup, ʒ ss.; potass. chlorat., gr. xij. to xvj. A dessertspoonful every hour. Food, stimulants, and, if necessary, an emetic are added. Externally the throat is touched with liquor ammonii caustici, pure or diluted with water. Professor Csokor showed the liver of a pig affected with actinomycosis. Professor Obersteiner read a paper upon *pruritus hiemalis*, a disease which he thought was a neurosis and more frequent than is supposed.

MEDICAL BERLIN.—The Berlin Medical Society met January 16, Professor Virchow in the chair. Professor Köbner presented a patient aged fifty years suffering from a *rare form of scleroderma*. The Society then discussed the supervision of medical practice by the state.

AN INFANT WITHOUT ARMS OR LEGS.—A Spanish medical journal states that there has been born in Madrid an infant with neither arms nor legs. In other respects it is well formed and healthy, and is now five months old.

TO CHECK THE SECRETION OF MILK.—Dr. Verrall (*British Medical Journal*) recommends iodide of potassium, 8 grains, and quinine sulphate, 23 grains, three times a day.

PROMOTING CREMATION.—At the meeting of the Cremation Society of New Orleans, on February 21st, the names of several prominent gentlemen were added to the list of members. Père Hyacinthe sent in his adhesion to the principles of the society. It was decided to proceed to the erection of a furnace on the plan of that in use in Milan. It is believed the City Council will direct the incineration of the pauper dead and all dying of contagious diseases as soon as the society is ready to take the contracts.

DR. ELISHA HARRIS' WILL.—The will of Dr. Elisha Harris, of Albany, has been presented for probate. So much of the estate as is credited to the estate of his wife, Eliza Andrew Harris, is left in equal moieties to the Infirmary for Women and Children of the City of New

York and the New York Infant Asylum, to provide for the care and treatment of one or more patients. All the personal property and the remainder of the estate of the testator, except his medical, hygienic, and other scientific books and manuscripts, go to the brothers and sisters of the testator. The books and manuscripts are left to the executors to be used as they decide.

THE GENERAL ASSOCIATION OF FRENCH PHYSICIANS held its annual meeting in Paris on February 3d, the president, Prof. Gosselin, presiding.

PROFESSOR JOSEPH MASCHKA has received the Order of the Iron Cross from the Emperor of Austria.

THE NEW YORK CANCER HOSPITAL.—A movement has been inaugurated for the establishment of a hospital in this city for the treatment of cancer exclusively. The institution will be largely endowed, and organized on the basis of a general hospital.

DR. JAMES B. HUNTER, of this city, has resigned his position in the Skin and Cancer Hospital.

STAMPING OUT PLEURO-PNEUMONIA.—A bill has passed the State Assembly appropriating $50,000 for the enforcement of the act designed to stamp out pleuro-pneumonia and other contagious diseases among the cattle in this State.

FOOT AND MOUTH DISEASE has been discovered among the cattle in Maine. The animals have been strictly quarantined.

CHANGE THE "INDEX MEDICUS."—Our remarks upon the necessity of more intelligent methods in editing the *Index Medicus* have excited a very general commendation. The *Weekly Medical Review* says: "We have always felt that while the intention of the publication is so praiseworthy, the means of carrying out the intentions were not the best adapted to the end in view. It does seem to us that THE MEDICAL RECORD has struck the key-note to its future existence and even increased usefulness. If it were published once in three months, six months, or even twelve months, it would be much more serviceable to the investigator. It matters little to the investigator what has been done within the last few months, because no observations can be said to have acquired the honor of established facts until a certain amount of time has elapsed, so that they may be viewed from the distance, and the general surroundings more accurately observed.

DR. ALBERT SMITH, formerly a practising physician in this city, died February 19th, at his home in New Rochelle, in the eighty-sixth year of his age.

SUIT AGAINST A PHYSICIAN FOR SANITARY NEGLECT.—A Washington physician has had suit at law commenced against him, in which the damages are laid at $1,000, for preventing, or failing to take the proper measures for preventing, the spread of a contagious disease in the family of the complainant. This is narrowing the responsibility of the physician down within close limits. The question will naturally arise in connection with this case, whether it is the function of the physician to prevent disease. If it is, he should certainly be remunerated for such service.

THE HOSPITAL COLLECTIONS AND THEIR DISTRIBUTION.—The final report of the Hospital Saturday and Sunday Association has been published, and it shows that the total collections from all sources amounted to $42,803.69, a sum which has only been exceeded once. The following table shows the source of that part which came from the churches:

Denominations.	1882.		1883.	
	Number of contributing churches.	Amount contributed.	Number of contributing churches.	Amount contributed.
Episcopal	49	$11,898.55	69	$12,962.72
Presbyterian	7	3,329.19	35	6,715.50
Methodist	7	350.92	37	1,156.99
Reformed (Dutch)	12	1,531.10	16	1,304.24
Baptist	1	392.64	12	938.00
Lutheran	3	241.40	13	683.13
Synagogues	10	1,707.17	14	1,693.99
Congregational	1	25.00	2	540.95
Unitarian	1	221.68	2	174.91
Universalist	..	.....	2	134.73
Moravian	..	.....	2	20.20
Miscellaneous	2	197.00	15	710.12
Total	93	$19,894.65	219	$27,040.50

Besides the above, contributions were received from auxiliary trade associations and other sources as follows:

GRAND SUMMARY.

	1882.	1883.
Churches and synagogues	$19,894.65	$27,040.50
Auxiliary trade associations	6,549.67	6,661.97
Other trade collections	574.00	1,412.75
Exchanges	1,408.53	3,021.95
Benevolent orders	245.00	495.50
Miscellaneous contributions	2,009.67	4,170.02
Grand total	$30,681.52	$42,803.69

Of the above sum, $10,735.68 was specially designated for particular hospitals or dispensaries, leaving $27,000 to be distributed *pro rata*.

This distribution was as follows:

Names of Hospitals.	Number of days of hospital care for free patients for the year.	Amount allotted each hospital.
1. Mount Sinai Hospital	49,594	$4,580.57
2. St. Luke's Hospital	48,672	3,323.14
3. Hospital for the Relief of Ruptured and Crippled	40,260	3,718.47
4. German Hospital	39,283	3,628.23
5. Presbyterian Hospital	29,437	2,321.82
6. House of the Holy Comforter, Free Home for Incurables	13,357	1,233.67
7. St. Mary's Free Hospital for Children	12,978	909.84
8. House of Rest for Consumptives	12,692	1,172.25
9. Woman's Hospital	8,246	761.61
10. Home for Incurables	6,851	969.44
11. Orthopedic Hospital	5,604	792.99
12. New York Eye and Ear Infirmary	5,476	774.87
13. Hospital of the French Benevolent Society.	3,833	542.38
14. New York Infirmary for Women and Children	3,817	540.12
15. Hahnemann Hospital	3,182	450.31
16. New York Ophthalmic Hospital	3,173	448.98
17. Manhattan Eye and Ear Hospital	1,622	229.51
18. New York Ophthalmic and Aural Institute.	3,299	466.82
19. New York Skin and Cancer Hospital	954	134.98
Total	292,330	$27,000.00

Concerning the very satisfactory increase in the amount of this year's collection, we cannot add to what we have said before, except to say that the Committee deserve great praise for the energy and perseverance which they have shown in pressing on the movement.

THE PROPOSED NATIONAL PHARMACOPŒIA.—The *Boston Medical and Surgical Journal* discusses the bill introduced by a Pennsylvania Congressman and providing for a national pharmacopœia to be gotten up by Government medical officers. The *Journal* thinks a new Pharmacopœia unnecessary, and says: "The United States Pharmacopœia is admitted by competent authorities to be one of the best national pharmacopœias, if not the best, in the world, and, what is very much to the purpose, arrangements were made by the convention which framed it for maintaining it in its present high position and keeping it abreast of the progress of science. We cannot see what is to be gained by another. If the new one is worse than the old it certainly is not wanted. If it is equally as good we shall have the intolerable nuisance of two authorities, unless the Government can compulsorily retire the present work, not on account of age or inefficiency, but on the lowest political ground of making room for somebody who wants the place and has a claim. If the United States want a more authoritative pharmacopœia they can easily give the existing one all the authority desired. May we be pardoned the surmise that disappointment at the control of the present Pharmacopœia being no longer almost exclusively vested in the 'great medical centre' has something to do with this new move!"

DR. HENRY L. SABIN, for fifty-six years in practice at Williamstown, Mass., and the oldest trustee of Williams College, died in that town February 25th, aged eighty-three years.

A NOVEL MEDICAL BULLETIN.—Things have come to a curious pass when half a dozen learned doctors find it necessary or agreeable to bulletin in the public press the health of ordinary actors. Mr. Lester Wallack is an estimable gentleman and popular on the stage, but he has now gone to Florida for his health. A report having circulated that he was paralyzed, seven visiting physicians hasten to announce in the daily papers that Mr. Wallack is not paralyzed, but "has a slight halt in his gait as the result of a recent severe attack of rheumatic gout in the hip-joint, which has already, under the genial influences of this climate, almost disappeared, rendering him as supple in his body as he is spiritual in his wit and humor." We do not understand the necessity of all these seven gentlemen testifying that Mr. Wallack is "spiritual in humor," or that he has helped at a church fair. In fact, it was an unnecessary and undignified display of medical names.

PROFESSOR JOHN C. DALTON has been elected President of the College of Physicians and Surgeons, New York.

THE SIMS MEMORIAL FUND.

To the Medical Profession and Others throughout the World:

The great achievements of Dr. J. Marion Sims call for some more lasting testimonial than obituaries and eulogies. To him medical science is indebted for much brilliant and original work, especially in gynecological surgery. Those who have been benefited by his teachings and new operations, and such as have had the direct advantage of his personal skill are among the first to recognize and acknowledge this debt.

To him is due the honor of giving the first strong impulse to the study of gynecological surgery in America.

It is believed that the medical profession everywhere, the vast number of women who owe their relief from suffering directly to him, and those who realize the benefits he first made possible, will gladly unite thus to honor the man through whose original and inventive genius such blessings have been conferred upon humanity.

At the suggestion of many friends, therefore, the subjoined committee has been organized, and it is proposed that a suitable monument be erected to his memory in the city of New York.

To this end the active co-operation of the medical profession and the many other friends of Dr. Sims throughout the world is respectfully solicited. Contributions of one dollar and upward may be forwarded to the journal which has been constituted the treasury of this fund—THE MEDICAL RECORD, New York.

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Reports of Societies.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, February 21, 1884.

FORDYCE BARKER, M.D., LL.D., PRESIDENT, IN THE CHAIR.

THE DIFFERENCES IN FORM OF THE ADULT HEAD.

DR. JOHN C. DALTON said that a short time ago he became interested in a new method of comparing the differences in the adult human head by means of paper patterns which hatters make when they fit their customers with hats.

He had secured 360 patterns of the heads of persons in various circumstances in life, but all in sufficient possession of their faculties to go to the hat store and get their heads measured for a hat. On comparing these patterns the following points were noticed: first, that there were differences in the general shape; that is, there were long heads and round heads. If 100 be assumed as the standard width, the *medium* length will be represented by 125. The mean form, however, included all those between 120 and 130 in length; below 120 being round heads, and above 130 being long heads.

The regulation head is a symmetrical oval, like the long section of an egg, with the small end in front and the large end behind.

Lack of symmetry existed in nearly all the heads; it was the rule. He had not yet seen an absolutely symmetrical head. In examining brains almost the first thing which strikes the operator is lack of symmetry. He thought it was not possible to make a symmetrical section of any brain; if symmetrical for the cerebrum it will be unsymmetrical for the cerebellum. Whether made vertical or horizontal, from before backward, or from behind forward, one lateral ventricle will be opened before the other will be entered. The student expects to find the brain symmetrical because books on anatomy illustrate it in that way, but it is not true.

Are these deficiencies in symmetry always in one direction? In the cases which he had examined there was a decided tendency to a preponderance in one direction. There was an apparent twisting of the head; the occiput a little more rounded on the right side, and the anterior part of the temple flattened in a corresponding degree upon the opposite side, so that the entire brain looked twisted. The twist to the left side was most marked. In the 360 cases there were 12 in which the twist was very perceptible, and of these 9 were twisted to the left and 3 to the right.

In the 360 patterns there was a preponderance of long heads over round heads—ten per cent. round heads, and twenty-six per cent. long heads.

Suppose we have two brains with differences in form, or one brain with differences in form of the two sides, does not this imply exaggeration or deficiency of certain parts of the brain which are endowed with special functions, and consequently there are differences in the operations of the nervous centres? It might seem so, and yet he was not at all sure that such an inference legitimately followed the observation.

All things considered, the depth of the convolutions, etc., Dr. Dalton thought it must be concluded that the two sides of the head may differ the one from the other, or two heads may exhibit differences, and yet the essential parts of the brain, so far as the direct working of nervous centres is concerned, are precisely the same.

THE PRESIDENT said that some fifteen or twenty years ago there was considerable discussion in obstetric and other journals with reference to the influence of parturition upon the shape of the human head, and possibly the intellectual faculties in later life. He then instituted a series of observations in the lying-in wards at Bellevue Hospital, and his House Staff made the outlines of the heads of 132 infants in two months. It was found that the shape of the head corresponded to the position, and as in about eighty-five per cent. of normal cases the position is the left oblique, there was a bulging out upon the right side of the head, because there was less resistance in that direction, and *vice versa*.

One of the questions at issue was, did this change in the shape of the head, produced by the moulding of it in the pelvis during parturition, influence the function of the brain afterward? In the investigations carried out as indicated, notes were made immediately after birth, and again at the end of eight days, and it was found that in a large proportion of cases this disproportion very largely, but not entirely, disappeared.

Dr. Barker believed that he could, by the study of the child's head, say whether the occiput presented to the right or to the left, etc., provided he could have opportunity to make the examination within forty-eight hours after delivery; but he would not venture to suggest how much such change of shape influences the performance of brain-function. Dr. Barker was also quite sure that the form of the head changes in the adult, and even quite late.

DR. CORNING regarded Dr. Dalton's communication as exceedingly important, especially with reference to the view that asymmetry of the head is evidence of insanity.

DR. WEBSTER asked Dr. Dalton if he had noticed any change in the size of the head in adult life.

DR. DALTON replied that he had not, but such an occurrence was not at all improbable, as other parts of the body enlarged or diminished in size with the increase in years. He regarded it as extremely probable that the twist which the head of the fœtus gets during parturition was one that disappeared, perhaps in nine out of ten cases; but in a few it might remain permanent, yet even then he did not know as it would indicate any deficiency in the brain as a nervous organ. Certainly from asymmetry of the head we could not conclude that there was a corresponding deficiency or enlargement of the brain; it might exist, but it was not certain that it did.

DR. P. A. MORROW then read a paper (see page 277) entitled

AN IMPROVED METHOD IN THE TREATMENT OF CERTAIN FORMS OF SKIN AFFECTIONS.

DR. E. B. BRONSON said that, according to his experience, the gelatine preparations possessed but comparatively little value. The gutta-percha and collodion preparations were much easier used than were the gelatine, and he thought they would supersede the latter entirely. Although protection of the surface was a matter of first importance, a material which could not be readily applied was rather objectionable, and the deliberation also with which the gutta-percha and collodion mixtures could be used gave them an advantage over the gelatine preparations. He concurred with Dr. Morrow in the statement that these methods constitute a decided advance in dermatological therapeutics.

DR. JACKSON had been less favorably impressed with the gelatine than with the collodion and gutta-percha preparations.

DR. S. SHERWELL, of Brooklyn, said he had but little experience in the use of these preparations, although he had employed some of the paints. He could easily see how it might be inconvenient both to prepare and to apply gelatine; and he did not exactly see how either of these preparations could be applied to hairy parts and make them so effective as are the oleates or unguents.

DR. MORROW said he had not experienced any inconvenience in the use of the gelatine preparations, and with regard to applying gutta-percha or collodion to the hairy scalp, for instance, he had the parts either shaved or the hair closely cut, when any of the mixtures could be applied without inconvenience.

after the beginning of the high temperature which was supposed to be due to milk fever. Theoretically, this process had been in existence some time before that, but yet he was at a loss to know how it could be ascertained that septicæmia is present unless there are symptoms to give evidence of it.

Dr. Jacobi said he did not wish to be understood as in the least finding fault with the treatment, but he simply wished to say that undoubtedly septicæmia developed before symptoms appeared, and before treatment could be commenced. He claimed to be one of those who were modest enough to admit that it is not always possible to make a diagnosis early enough to save all patients. He also claimed that symptoms must be present in order to make a diagnosis, and that they were not present in Dr. Lee's case. He also claimed that many cases of septicæmia are difficult to recognize because of the absence of one exceedingly important symptom, that is, elevation of temperature. Moreover, septicæmia is not characterized by pain, so what is there to guide the physician in making the diagnosis? He simply meant to state that Dr. Lee's case was one in which, if it had been possible to recognize the indications, the treatment would have been adopted earlier, but as it was the intra-uterine injections were resorted to too late.

Dr. Northrup said, concerning the exudation on the lower half of the uterus, that two names had been given to it, but whatever name it might receive, it was composed of fibrin and pus, the same material that is found at the vulna or ostium vaginæ, or even upon the cervix, and called diphtheritic and croupous exudation. He remarked that Dr. Delafield made the distinction that an exudate composed of pus and fibrin, which is not due to the specific poison of diphtheria, is croupous. The same as the exudation composed of pus and fibrin which appears in the fauces in scarlet fever or some of the infectious diseases would be called croupous tonsillitis or pharyngitis, unless the scarlet fever or other infectious disease was complicated with diphtheria.

(To be continued.)

MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.

Stated Meeting, February 25, 1884.

S. O. Vander Poel, M.D., LL.D., President, in the Chair.

Dr. Wm. S. Halsted read a paper on

THE EFFECTS OF ADDUCTION AND ABDUCTION ON THE LENGTH OF THE LIMB IN FRACTURES OF THE NECK OF THE FEMUR.

He demonstrated, by a series of illustrations, that abducting the lower limb makes it measure *less* along the line from the anterior superior spine of the ilium to either malleolus, while adducting it makes it measure *more* along the same line. Moreover, when one limb is adducted the other must be abducted to be brought parallel with it.

In fracture of the neck of the femur, therefore, with adduction, the injured limb might actually measure longer than the sound one; because, first, it is lengthened by adduction, and, second, its fellow is shortened by abduction.

In a case from which he had the specimen, he was enabled to make the diagnosis of fracture by the recognition of these facts. The injured limb was *apparently* shortened, but in reality, when measured from the anterior superior spine of the ilium to the malleolus, it was lengthened *one-eighth* of an inch, although shortened *one-fourth* of an inch along Bryant's line.

He had also seen another patient with fracture of the neck of the femur and abduction, and the limbs were apparently of equal length. Along Bryant's line the injured limb measured *three-eighths* of an inch, but from the anterior superior spine of the ilium to the external malleolus, *one and one-fourth* inch shorter than the sound one.

In cases in which, measured on Bryant's line, the limbs were equally shortened, there would be more of a limp when adducted than when abducted. For this reason Dr. Halsted thought the limb should not be allowed to remain in an adducted position.

The paper was discussed by Dr. A. B. Judson, who complimented the author on his careful and accurate study of this certainly obscure point, but one which he thought might not have very great practical importance. He spoke thus because he felt quite sure it could not have a practical importance in cases of hip disease, and it might not in fractures, as it seemed to him, because the anterior superior spine of the ilium was situated so near the point of motion, and the opposite point, the malleolus, was so far away, that the differences in length were liable to be so varied by adduction and abduction as to lose their practical importance.

Dr. Wyeth thought that all efforts at exact measurements had been proved to be unavailing, because it had been established that it was the exception to find both limbs of precisely the same length normally.

Dr. Halsted said he did not intend that his method should apply in cases of hip-joint disease, because measuring of limbs is not of special consequence there, and furthermore, if it were, the element of flexure which is present would materially affect this result. He simply referred to hip cases because of the apparent paradox concerning the length of limbs, which was well known to orthopædic surgeons.

With regard to the angle being too obtuse to be of practical importance, he thought Dr. Judson was in error, because the principle was successfully applied in his case at Bellevue Hospital, and had a direct bearing on the question of diagnosis. Its practical application in diagnosis and treatment was all he designed for it, and not as a method for measuring limbs, mentioned by Dr. Wyeth.

Dr. E. C. Spitzka then read a paper on

THE PATHS OF CO-ORDINATION.

Progress in the localization of cerebral functions has followed two different lines of research. The first, whose results became most rapidly popularized, consists in the registration of the phenomena following irritation and disease of limited cortical and sub-cortical areas; the other in the anatomical study of the tracts connecting certain centres with certain peripheries. The first method is the most satisfactory, as regards the rapidity with which conclusions can be drawn from it; but it also suffers from the imperfection of being a more or less empirical method, as has been recognized by the latest and ablest expounder of cortical localization.

The study of tract development and tract disease, which in the hands of Turck yielded the most positive knowledge of which cerebral anatomy can boast—that is, of the course of the nerve-tract, through which the voluntary control of the extremities passes—has within a decade received a new impulse. Flechsig revealed the course of special nerve-tracts, on the basis of their embryonic development; Gudden and his pupils traced others, through artificial atrophies induced in various animals; and a number of pathologists are annually reporting secondary degenerations and systemic diseases of nerve-tracts in the human brain, thus corroborating the former.

The relation of these two lines of research to each other may be compared to that of two exploring expeditions undertaking the survey of a continent from opposite regions. The one maps out the coast outline and here and there follows up the course of an estuary, the other traces the great water-courses and mountain ranges toward that same coast; but the interior geography of the continent will remain unknown or obscure,

until the two expeditions shall have met and joined the paths they have followed. In the central nervous system we know approximately well the physiological geography of the brain surface; we are also fairly familiar with the course of the spinal tracts, but we have, like the surveyors of a new land, not yet succeeded in uniting these tracts and centres. The great intermediate district is in large part a tangled labyrinth of fibres, which it will take many more decades to unravel. But step by step this is becoming accomplished; with every new observation a piece here and a piece there is being isolated, and with each such isolation the field of the unknown becomes restricted and the labor of future investigators by so much lightened. Already we know with mathematical precision the course of the will-tract from the cortex to the extremities, and we are acquainted with the course of certain segments—if not of the entire tracts—conducting visual and special sensory impressions to the cortex. It is to call attention to another segment that I shall occupy your time this evening.

I was fortunate enough to obtain permission to make an autopsy in the case of a private patient who had presented the interesting phenomenon of a pure unilateral ataxia of movement, without paralysis, and which I had attributed during life to a hemorrhagic lesion of the pons varolii. That the diagnosis was confirmed was the least important feature revealed; a secondary degeneration was discovered of unprecedented distinctness, and so uncomplicated that it seems to me to excel in its purity the results of the most limited physiological experiment. May these considerations serve as an apology for making the record of a case the subject of a paper.

Dr. Spitzka then related at length the history of a patient who had immediately after an apoplectiform attack manifested complete ataxia with some anæsthesia and considerable paræsthesia of the right side. The patient lived for six years, and the symptoms mentioned persisted till death, with slight modifications. After death an apoplectic cyst was found in the pons, not affecting the pyramidal fibres, but those of the fillet (lemniscus). A descending degeneration of beautiful distinctness was traced from the cyst down to the upper fine-bundled, so-called sensory decussation of Meynert, and involved the stratum intermedium, or so-called interolivary layer of Flechsig. Specimens and drawings illustrating the lesion were exhibited. Dr. Spitzka concluded that this case showed that the stratum intermedium, connected as it was with the nuclei of the columns of Goll and Burdach, was the path of the muscular sense, and that hence the channel of the muscular sense, like that for the voluntary control of the extremities, decussated, so that right-sided lesion above the decussation would produce left-sided disturbance, and *vice versa*.

Dr. E. C. Seguin had been interested in the paper, because in the report of the autopsy and microscopical examination he thought he was able to more clearly understand cases which heretofore he had regarded as sclerosis of the hemispheres. These were hemi-ataxic, ataxic tremor, with slight impairment of sensibility, and paræsthesia, but the cases differed from Dr. Spitzka's in being essentially chronic in their course.

There were some difficulties in accepting Dr. Spitzka's conclusions, arising from experiments which had shown that decussation must take place in the cord. Stab-wounds and tumors also had given evidence in favor of decussation in the spinal cord. Besides there was objection to regarding ataxia as a symptom, Dr. Spitzka having spoken of it as a symptom of interrupted conduction.

Dr. Seguin thought Brown-Séquard had shown satisfactorily that ataxia is a symptom of irritation, without any destruction of nerve-tissue.

Dr. Spitzka, in closing the discussion, stated that he recognized the existence of such a class of cases as those alluded to by Dr. Seguin, but did not believe that his own anatomical examination threw much light on them, as they were probably cortical. It was possible for combined motor and sensory disturbances of the kind described to exist with cortical or subcortical disease. He could not exactly understand the nature of the objection based on Dr. Seguin's statement that ataxia might be due to irritative lesion. If he comprehended Dr. Seguin correctly, he argued in this wise: Ataxia may be due to irritative lesion, hence it is difficult to explain it on the basis of a destructive lesion. The same argument would dispose of every sign of focal brain disease; for, as is well known, hysteria apes all of them, while many symptoms may be due either to irritative or to destructive lesion. As to Brown-Séquard's experiment, it had no bearing on the present case, for while these experiments showed that the tactile and pain paths decussate in the cord, they distinctly showed that the muscular sense did not follow the same course. Even if it were so, the case he related stood by itself, an evidence that the muscular sense decussated, whatever necessity there might be for assuming a redecussation.

Under the head of "Scientific Communications," Dr. C E. Nelson offered one on "Biology," already published, and began its reading. On motion, the further reading was postponed until some future meeting.

COLLECTIVE INVESTIGATION OF DISEASES.

Dr. David Webster, chairman of the committee, reported the following questions, and it was ordered that they be printed and sent to every member, with the request that answers be returned to the chairman on or before March 15, 1884, preparatory for discussion March 24, 1884.

1. "How many cases of intestinal obstruction have come under your observation, and what peculiar symptoms were manifested in each case?"

2. "Have you ever performed an operation for the relief of intestinal obstruction due to peritoneal adhesions, and if so, what was the result in each case?"

3. "Have you treated any cases of intestinal obstruction, partial or complete, when the so-called pathognomonic symptoms, such as stercoraceous vomiting and obstinate constipation, were absent?"

REPORT OF DELEGATES TO THE STATE MEDICAL SOCIETY.

Dr. C. L. Dana reported that all the delegates were present except Drs. Mundé, F. V. White, Leale, and Hitchcock. Further, that three vacancies in the delegation were created by the election of Drs. Lewis, Lockwood, and Gibney to permanent membership. The report was adopted. The vacancies in the delegation were subsequently filled by electing Drs. L. Emmett Holt, M. Josiah Roberts, and Wm. M. McLaury.

Dr. A. Jacobi, Chairman of Committee on Hygiene, made a few remarks and then offered the following resolution, which was adopted:

Resolved, That this Society favors the passage of

THE ACT TO PROTECT FACTORY CHILDREN,

now before the Legislature of this State.

SCHOOL OF MIDWIFERY—LICENSING OF MIDWIVES.

Dr. P. C. Cole, under the head of "New Business," introduced and read two bills, one to establish a school of midwifery, and another to regulate the practice of midwifery by midwives, and gave his reasons for asking the Society to adopt the following resolution:

Resolved, That the Medical Society of the County of New York approves of the generel intent and object of these bills.

The subject gave rise to discussion, and was temporarily disposed of by being referred to a special committee, to be reported upon at some future meeting.

The President appointed as the committee Drs. W. M. Chamberlain, A. W. Warden, C. C. Lee, A. M. Jacobus, and E. L. Partridge.

A resolution was adopted expressing the opinion that

THE SOCIETY FOR INSTRUCTION IN FIRST AID TO THE INJURED

is entitled to public recognition and support.

Dr. Joseph W. Howe was elected delegate to the International Medical Congress, to be held in Copenhagen in August next.

The resignation of Dr. T. H. Wilcox was accepted, after which the Society adjourned.

Correspondence.

OUR LONDON LETTER.

(From our Special Correspondent.)

THE OPIUM TRAFFIC AND ITS ABOMINATIONS—THE PAY SYSTEM IN HOSPITALS—UNHEALTHY DISTRICTS—PALACES AND SLUMS.

London, February 5, 1884.

The opium question continues to excite considerable interest at intervals both in its medical and its social aspects. Defenders of opium-smoking have not been wanting, and have done their best to counteract the effects of the statements published by medical missionaries and other British residents in China. Some medical men who have written on the subject even maintain that the habit, when only moderately indulged in, is not only not injurious, but even beneficial. Sir George Birdwood maintains that it aids digestion in vegetarians such as the Hindoo races. The same argument has been used to push the sale of malt liquors in England, and the chief manufacturers of ale and stout in this country publish testimonials from medical men and unctious flatteries from the medical journals by the score. Continental wines have been similarly advocated both in England and the Continent. Nor have champions been wanting from among our ranks to vaunt the medicinal virtues of spirits-and-water. It would, however, be idle to deny that intemperance is one of the greatest evils of the day, both in its physical and its moral aspects. Even our professional organs are alive to this, and at occasional intervals devote a few lines to point out the evil effects of alcohol. Various alcoholic beverages are, though, frequently lauded in the literary columns of our chief medical papers and *regularly* advertised therein. These advertisements are of course *paid for*, and perhaps this may explain the simultaneous appearance of commendatory notices among the reading-matter of the journals. All this, of course, goes far to neutralize any occasional warning as to the danger of alcohol; but it pays, and the plain truth is that the opium traffic pays the Indian Government. It may be remarked that most of its defenders are officially connected with the Indian Government. Its worst results are seen in China though, and as a set-off against the feeble utterances of a few Indian medical officials, we have the clear and unimpeachable testimony of many more medical men who reside, or have resided, in China. Many of these are medical missionaries, and have thus had special opportunities of observing both the physical evils and the social and moral degradation produced by the habit. They are not interested parties; a large number of them are well qualified medical men, and their testimony is unanimous. One of these gentlemen, Dr. R. H. A. Schofield, who died last summer in China, was one of the most highly qualified medical men that ever went out as a medical missionary, and he published on several occasions accounts of the evils of opium-smoking, and used all his influence against this habit, which he considered a curse to the country. Some of his papers may be seen in the autumn numbers of a periodical called "China's Millions." America has abolished slavery; surely it is time for Great Britain to suppress the opium traffic. *But it pays.* In India, the cultivation of the opium plant is a Government monopoly, and its sale to the unfortunate Chinese (on whom it was forced at the cannon's mouth) pours millions into the Indian exchequer.

The pay principle in hospitals is on the increase and has been adopted by one of our most richly endowed metropolitan hospitals, viz., Guy's. Threepence weekly is to be exacted from out-patients, and several beds reserved for in-patients who can pay a guinea a week. As regards the out-patients, the system has, at least, so far worked satisfactorily. The numbers have not diminished, and nearly all have been able to pay the small sum demanded. The only danger is that the pay system may encourage patients to go who could really afford to consult ordinary practitioners in the neighborhood at small fees. Many patients who would perhaps have hesitated before seeking eleemosynary medical aid, may view the matter differently when asked for a fee, however trifling, and consider their position different from when receiving bona fide medical charitable advice. We hope that the hospitals which have taken up the pay system will be wary in weeding out unsuitable cases.

The newspapers and journals continue to direct attention to the unhealthy slums of London, many of which are veritable plague spots. It is not only in London that such are found, nor is the evil confined to poor neighborhoods. Only eleven years ago an outbreak of typhoid fever occurred at Caius College, Cambridge, in buildings which had been erected only four years previously with such care and expense that sanitary defects could scarcely be dreamt of. Yet such were found. Bagshot Park and Buckingham Palace are instances of royal residences which have been tried in hygienic scales and found wanting. At the present moment a paper war is raging in the columns of our medical journals, between Mr. Latham and Mr. Barford, as to the sanitary condition of Wellington College. Mr. Barford is the late medical officer to the college, and his recommendations as to sanitary matters would appear to have been disregarded with dire results. Mr. Latham is an engineer and does the best he can to whitewash matters, but his opinion on medical matters is obviously not of much value.

HOSPITALS FOR INCURABLES.

To the Editor of The Medical Record.

Sir: Your editorial in The Record of the 16th ult., on "Hospitals for Incurables," is timely, and calls attention to a want much felt in all our large cities. I have nothing to add to what you have so well said, but in this connection it may not be out of place to refer to one of the most modest and deserving of Brooklyn's many charities.

The "Brooklyn Home for Consumptives" is an institution working in the direct line of your suggestions, and its history is worthy of being more widely known.

Less than three years ago, a well-known clergyman of this city sought to obtain for a poor woman suffering from phthisis, admission to some proper hospital. After repeated applications and repeated refusals, he eventually found, to his surprise, that there was no place for such, except the almshouse. This woman was well bred, had once been in good circumstances, and now needed tender care and gentle nursing for the few days remaining to her. She was in no condition to endure the tender mercies of the County Poor House.

The clergyman referred to said, laconically, "If there is no place for such persons, *there should be.*" With the aid of friends he leased a private house, and in a small way opened a home for three or four consumptive patients. As the story of his endeavors became known, he found sympathy and assistance. The house became too small for the number of applicants, and finally the premises 219 Raymond Street were purchased and adapted to the purposes of the "Brooklyn Home for

Consumptives." It has a capacity of thirty beds, and during the last year sixty-nine patients were cared for. The management is vested in a Board of Trustees, composed entirely of ladies, by whose energy the property is nearly free from indebtedness. It is already but too apparent that the accommodations are insufficient to meet the urgent demand for just such aid and shelter as are needed by this numerous class of sufferers. The management is of the broadest kind. No distinction of race, sect, sex, creed, or color stands in the way of admission. Patients in the last as well as those in the first stage of phthisis are received and tenderly cared for. Still further, patients are allowed to choose whether they will be treated by the regular or the homœopathic physicians in attendance.

It is true charity to smooth the descending pathway of those who feel that they are a burden to their friends—to relieve from the daily anxiety respecting the supply of food and a comfortable shelter—to provide them a *home.*

When the real needs of this class of hopeless sufferers are brought to the attention of the public in a proper manner, there will be little difficulty in providing a proper refuge for them.

BENJ. EDSON, M.D.

BROOKLYN, N. Y.

Army and Navy News.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from February 17, 1884, to February 23, 1884.

PATZSCI, JULIUS H., Captain and Assistant Surgeon. Leave of absence extended one year on surgeon's certificate of disability, with permission to go beyond sea. S. O. 43, par. 9, A. G. O., February 20, 1884.

MADDOX, T. J. C., First Lieutenant and Assistant Surgeon. Assigned to temporary duty at Meyer's Springs, Texas. Per Post Orders No. 27, par. 1, Fort Clark, Texas, February 13, 1884.

Official List of Changes in the Medical Corps of the Navy, for the week ending February 23, 1884.

NASH, F. S., Passed Assistant Surgeon. Detached from the U. S. S. Dispatch, and waiting orders.

RUSH, W. H., Passed Assistant Surgeon. Detached from the Minnesota, and ordered to duty on board the Dispatch.

HALL, J. H., Passed Assistant Surgeon. To the Minnesota.

Medical Items.

CONTAGIOUS DISEASES—WEEKLY STATEMENT.—Report of cases and deaths from contagious diseases reported to the Sanitary Bureau, Health Department, for the week ending February 26, 1884:

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Cases.								
February 19, 1884	1	21	75	6	70	47	0	0
February 26, 1884	0	11	64	5	39	44	0	0
Deaths.								
February 19, 1884	0	6	14	6	11	16	0	0
February 26, 1884	0	5	11	5	3	23	0	0

MEDICAL VIENNA, BERLIN, AND PARIS.—At the regular meeting of the Society of Physicians of Vienna, January 18th, Professor Billroth presiding, Dr. Breus related the history of an infant eighteen days old which had suffered *severe injury of the skull* at the time of birth. The mother had a small pelvic cavity (the conj. vera being 9 ctm.), while the child was large, weighing about seven pounds. Forceps were applied, and the left frontal bone crushed so that a fragment had to be removed. Despite this the child showed no paralysis, and made a good recovery, as did also the mother. Dr. Hofmokel related the case of a girl, aged twenty, who suffered from a *cystic tumor of the thyroid,* which had been repeatedly tapped and injected with iodine. Finally a section was removed, the wound left open, and treated with sublimate injections and wood-wool. It healed rapidly, leaving the tumor much reduced in size. Professor Meynert read a paper upon the *nourishment of the brain.*

At the meeting of the Berlin Medical Society, on January 16th, Professor Sonnenburg related the history of a successful case of *nerve-stretching for paralysis and atrophy.* The patient, a naval officer, had suffered from a severe fall with dislocation of the left thigh, the replacement had been imperfectly done, and the patient became almost entirely paralyzed in the left limb, which resoatrophied. Electricity and hydrotherapy had been tried with no avail. Two years ago Dr. Sonnenburg stretched the left sciatic and peroneal nerves; the patient subsequently rapidly improved and became fit for active service. Professor Gluck showed a patient who had had a felon on the left forefinger; this was cut open, but the tendon was cut in two in the operation, the ends did not unite, and the patient was left with a paralyzed finger. Gluck cut down, sewed the two ends of the tendon (which were 8 ctm. apart) together with catgut, the parts united, and the finger was restored to usefulness. Professor Gluck also showed an infant a few weeks old, with a *colossal angioma* covering two sides of the thorax and the back. Drs. Virchow, Senator, and Herschberg continued the discussion upon the subject of *nephritis arthritica.* Professor Liman related the histories of two cases of insanity, of forensic interest.

At the meeting of the Académie de Médecine, January 29th, M. A. Guérin, presiding, M. Bourdon presented for Dr. Niepce a work upon the destructive action of *hydrogen sulphide upon the bacilli of tuberculosis.* M. Rochard made a verbal report upon the alleged discovery by M. Lacerda, of Brazil, of *the microbe of bêri-bêri.* The criticism was made that M. Lacerda had made previous announcements of the discovery of the microbe of serpents' venom and of yellow fever, in both which announcements he had been mistaken. M. Proust made a report of the commission appointed to inquire into several facts regarding *trichinosis.* The conclusions were that there was no great danger of confounding epidemics of trichinosis with those of typhoid fever. The commission reported, by a vote of 5 to 1, that there was no danger to health from the importation of American pork. M. Cornil read a note upon the *poisoning of fowls with jequirity.* He had injected the jequirity infusion into these animals for the purpose of studying the mode of action of the microbes upon the organism, and the method of elimination.

THE BRITISH MEDICAL ASSOCIATION MEETING AT BELFAST.—The fifty-second annual meeting of the Association will be held on July 29, 30 and 31, and August 1, 1884, at Belfast, under the presidency of James Cuming, M.A., M.D., F.K.Q.C.P.I., Professor of Medicine, Queen's College, Belfast. The address in "Medicine" will be delivered by Sir Andrew Clark, Bart., M.D., F.R.C.P., Physician and Lecturer on Clinical Medicine, London Hospital. The address in "Obstetric Medicine" will be delivered by George H. Kidd, M.D., F.R.C.S.I., Master of the Coombe Lying-in Hospital, Dublin. The address in "Physiology" will be delivered

by Peter Redfern, M.D., F.R.C.S.E., Professor of Anatomy and Physiology, Queen's College, Belfast.

Visitors going from America to attend this meeting can travel by any of the following routes: 1. A Cunard steamer will leave (*a*) New York on Wednesday, July 16th, arriving in Queenstown about the following Thursday week, July 24th; (*b*) Boston on Saturday, July 19th, reaching Queenstown the following Monday week, July 28th. 2. A White Star steamer will leave New York on Saturday, July 12th, and on Saturday, July 19th; due at Queenstown about July 20th and July 27th. 3. An Inman steamer will leave New York on Tuesday, July 15th; due at Queenstown about July 23d. 4. An Allan steamer will leave Quebec on Saturday, July 19th, arriving in Londonderry about July 26th or 28th. 5. An Anchor steamer will leave New York on Saturday, July 19th; due at Londonderry on July 29th. Londonderry is 95 miles from Belfast, and trains run daily between the two places. The route from Queenstown to Belfast is from Queenstown to Cork, Cork to Dublin (165 miles by train), and Dublin to Belfast (113 miles).

Meeting of the International Medical Congress at Copenhagen.—The time of the meeting of the British Medical Association at Belfast has been fixed so as not to interfere with the International Medical Congress, which is to begin at Copenhagen on August 10th. A steamer will leave Hull, England, on August 2d and 9th, for Copenhagen; and on August 5th a steamer will leave Leith, Scotland, for Copenhagen. Both these places, Hull and Leith, can be reached on any day by leaving Belfast on the previous evening by the cross-channel steamers. Visitors, after attending the meeting of the British Medical Association in Belfast, will have ample time to travel to Copenhagen for the Congress.

Communications in reference to the meeting of the British Medical Association at Belfast to be addressed to the Hon. Local Secretaries, John Moore, M.D.; Alex. Dempsey, M.D.; John W. Byers, M.A., M.D.

The Diagnosis between Belladonna Rash and Scarlatina.—Dr. Selden B. Sperry, of Delafield, Wis., sends us the history of a case illustrating, as he believes, two important points in the differential diagnosis between scarlatina and belladonna rash. He was called to see a girl, aged three years, who had for two days suffered with a sore throat. He examined her, found no patches, and the child was feeling well. He prescribed tincture of belladonna in one-minim doses every hour. Dr. Sperry writes: "She went to bed and asleep at her usual bedtime. About eight o'clock the father came after me, saying the child had broken out with scarlet fever. I went to see her immediately and found her sitting up crying, with intense *irritation* of the *skin*. Her face was as red as in a thoroughly developed case of scarlatina. Her body was red, but not as much as her face, and more than the extremities. The eruption was decidedly *punctated*, a point I was careful to look into, because Bartholow states that it differs in that respect from the rash of scarlatina. She had had no chill. Temperature, normal; pulse, 65. Her throat was worse than ever. I ordered her washed with a weak solution of carbolic acid, and gave her a teaspoonful of syrup of Dover's, and she was all right in the morning. She had taken four doses, and the eruption did not appear until she was in bed."

A Man with Three Testicles.—Dr. H. H. Williams, of Johnstown, Pa., sends us the history of the following unique case: "I was consulted a short time since by a young man, aged twenty years, with reference to a lump in his scrotum, which he said had been there ever since he could remember, and that it had never given him any trouble, but that he was anxious to know concerning its nature. Upon examination I found what is evidently a third testicle. His scrotum is quite large and his normal testicles measure two and a fourth inches in their longest diameter, while anterior to the left one is a third testicle, half as large, freely movable, and having a distinct cord of its own. Upon squeezing this testicle he experiences precisely the same sensation as when the others are pressed. When he asked if this would in any way interfere with his getting married, I assured him it would not, but told him to look out for triplets."

Professor von Bergmann at the Operating Table.—A Berlin correspondent of the *Medical and Surgical Reporter* writes of Professor von Bergmann's method of operating as follows: "The most scrupulous attention is paid to cleanliness in the hands and finger-nails of the operator and assistants. After a thorough washing the hands are dipped in a solution of corrosive sublimate, 1 to 1,000. This was repeated several times during the operation, and the person of the patient around the point of incision was also similarly washed and treated. Before and during the operation a spray of carbolic acid solution, 3 to 100, continuously played on the part operated on, covering surgeons and nurses, as well as patients, with a fine drizzle. All operating instruments and ligatures are kept in an antiseptic solution during the operation, except when in use; the instruments lying in the carbolized preparation. The sublimate solution is Professor von Bergmann's favorite antiseptic, when practicable. He first introduced it six years ago at Wurzburg. The operating-table is covered with a heavy sheet of rubber, one-half inch thick, which is easily and thoroughly cleaned and kept free from septic infection. Chloroform only is used. It is administered by means of a piece of flannel cloth stretched over a wire cone, about the size and shape of a very small bowl. Patients are not allowed to eat on the day of the operation, before its performance. Nausea is comparatively rare, and deaths on the operating-table very rarely heard of. The head of the patient rests on a cylindrical air-cushion, which offers suggestions of convenience and cleanliness. The surgeon applied the bandages wholly himself. Everything was immaculately clean. The iodoform, which to an American seems used with such astonishing freedom, not infrequently—according to Berlin physicians—produces delirium, and is even charged with more serious results. Dr. Fehleisen, one of Professor von Bergmann's assistants, is continuing his experiments with the bacilli of erysipelas and inoculation with the cultivated poison, notice of which was taken editorially in the *Reporter* several months since."

When not to give Chloroform in Parturition.—In a paper read by Dr. Savill before the East Surrey District of the Southeastern branch of the Medical Association, he lays down the following rules to be observed in not giving chloroform during labor: 1. Never give it to a woman who has a tendency to flood during every confinement, or to those who have great relaxation of fibre, or weak, anæmic women in their eighth or tenth confinement, except for necessity. 2. Do not give it where labor is complicated with severe vomiting, or with acute heart or lung trouble unless there be an imperative demand for it. 3. It should not be given to complete anæsthesia except for operations, convulsions or spasms of the cervix, and then one person should devote his entire attention to it. 4. The inhalation should be stopped directly the pulse becomes weak or the respiration irregular. 5. Do not give it if there be grounds to fear a fatty or enfeebled cardiac wall. 6. In all cases where it has been given, there should be extra care to prevent post-partum hemorrhage.—*The Obstetric Gazette.*

A Ready Means for Removing Foreign Bodies from the Throat.—Dr. M. A. Veeder, of Lyons, N. Y., writes: "A loop of ordinary suture wire, which may be readily bent in any shape desired, forms an available means of hooking such articles as pins and needles out of the throat, and has the merit of succeeding sometimes where more elaborate contrivances have failed."

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Original Articles.

MALARIA.[1]

BY GEORGE M. STERNBERG, M.D.,

MAJOR AND SURGEON, U.S.A.

MAILLOT, in his "Traité des Fièvres Intermittents," concludes his enumeration of the various hypotheses which have been advanced to explain the etiology of the malarial fevers, with the following quotation from Monfalcon: "To know that we know nothing is a great deal; we are then much nearer the truth than when we mistake for this latter, erroneous hypothesis."

The earlier medical authors seem to have considered it their duty to explain all things, and they apparently had as great an abhorrence of a confession of ignorance as nature was said to have of a vacuum. It is only within comparatively recent times that we meet with such ingenuous statements as the following. Professor Bartlett, in his "Treatise on Fevers" (1847), says: "The essential, efficient, producing cause of periodical fever—the poison whose action upon the system gives rise to the disease—is a substance or agent, which has received the name of *malaria*, and *marsh miasm*. The nature and composition of this poison are wholly unknown to us" (p. 346).

Professor Geo. B. Wood, in his "Practice of Medicine," says: "Of the precise nature of miasmata nothing certain is known" (vol. i., p. 161).

Aitken says: "The poison in the absence of any better name is known as 'malaria;' and as physicians have merely inferred the existence of such a poison, no exact knowledge has yet been obtained as to its nature and source" ("Science and Practice of Medicine," vol. i., p. 473).

These statements, made by three of the highest medical authorities of modern times, show a great advance in the direction of truth, for, as Monfalcon says, "to know that we know nothing is a great deal," and so long as we have not acquired this knowledge we are not at all likely to reach the truth, for there is no incentive to engage in those laborious experimental investigations by which modern science seeks to solve etiological problems which have not been settled by the speculations of medical philosophers in the past, and which there is no reason to suppose are capable of solution by any other than the experimental method.

But the most recent of the authorities above mentioned penned the confession of ignorance which we have quoted more then fifteen years ago, and during the interval numerous investigators, in various parts of the world, have undertaken to apply the experimental method to the solution of etiological questions; and in the case of several infectious diseases of man and of the lower animals have demonstrated very conclusively that these diseases are due to the multiplication within the body of the infected individual of parasitic micro-organisms known under the general name of bacteria. A similar explanation has been given of the etiology of the malarial fevers, and numerous investigations have been made since the time of Bartlett, of Wood, and of Aitken, which we must duly consider before we will be justified in asserting, as they have done, that nothing definite is known as to the nature of *malaria*. These authors were, no doubt, right in setting aside the hypothesis of their predecessors as not proven; but my task is a more difficult one, for I am called upon to estimate the value of the experimental evidence which has been submitted by different observers in favor of their respective claims to the discovery of the real nature of malaria. In a letter from our worthy President, dated February 22, 1883, I am informed that it is the desire of the Executive Committee that I shall prepare a paper upon the subject of *malaria* for the present meeting of the American Public Health Association, and I am requested "to define what we actually know about infective particles as causes of disease, and especially of malaria."

Since accepting this invitation I have been called upon to write a *résumé* of our knowledge relating to the rôle of the bacteria in infectious diseases for a work ("Bacteria," Wm. Wood & Co., Publishers) which will be published before this paper can possibly make its appearance in our annual volume. As the limits of the present paper do not admit of as extended an account as I have given in the work referred to, I must ask to be excused from attempting to define here "what we actually know about infective particles as causes of disease" in general; and I shall occupy but little of your time in discussing the various claims which have been made to the discovery of a specific malarial organism, or germ, for the reason that a careful consideration of the evidence advanced in support of these alleged discoveries has failed to convince me that any one of them is supported by proof of a satisfactory character. On the other hand, as stated in my special report to the National Board of Health (Supplement No. 14, "National Board of Health Bulletin") I am not prepared to deny that the *bacillus malariæ* of Klebs and Tommasi-Crudeli, "or some other of the organisms associated with it" in the mud and water of malarious swamps, may be the active agent in the causation of malarial fevers in man. Indeed, there are many circumstances in favor of the view that the etiology of these fevers is connected directly or indirectly with the presence of bacterial organisms, or their germs, in the air and water of malarious localities. But that the *bacillus malariæ*, or any other parasitic micro-organism, invades the blood of those exposed to malarial emanations, and produces the characteristic paroxysms of intermittent and of other forms of malarial fever, by its presence and multiplication in the circulating fluid, is an hypothesis which rests upon a very slender amount of direct evidence, although it is now more than four years since the discovery of Klebs and Tommasi-Crudeli was announced, and malarial fevers are so widely prevalent that we are justified in looking for confirmation from numerous independent sources. So far as I know, no one in America has ever seen the *bacillus malariæ* in the blood of a malarial fever patient. Nor has confirmation come from English, German, or French sources. On the contrary, a French physician, Lavaran, who has spent much time in the microscopical study of the blood of malarial fever patients, claims to have discovered quite a different parasite, his *oscillaria malariæ*, and makes no mention of having met with the *bacillus malariæ* of Klebs and Tommasi-Crudeli. The same remark applies to the researches of Richard, who confirms Lavaran. For my own part I must confess that I have never seen, in the

[1] Read at the meeting of the American Public Health Association, Detroit, Mich., November 13, 1883.

somewhat numerous specimens of blood which I have examined from malarial fever patients, either the bacillus of Klebs and Tommasi-Crudeli, or the parasite described by Lavaran. It is but fair to state, however, that I have had but one or two opportunities for obtaining blood during the cold stage of a malarial paroxysm, and have never punctured the spleen to obtain a specimen for examination, my samples having been invariably obtained from the end of the finger.

In calling attention to this negative evidence, it is not my design to bring discredit upon the observations of the distinguished Italian physician, Tommasi-Crudeli, or upon those of his countrymen Cuboni and Marchiafava, who report that they have found the so-called *bacillus malariæ* in the blood of persons suffering from malarial fever. I do not doubt that bacilli have been found by these gentlemen, as reported. But I would call attention to the fact that the first account published by Marchiafava related to the finding of bacilli in the blood, lymph, spleen, etc., of three persons, who died of *pernicious* fever. As I have pointed out elsewhere, the finding of micro-organisms in the blood and tissues, obtained post mortem, especially in warm climates, cannot be taken as evidence that the same organism was present in the blood during life, and especially during the earlier stages of the disease, at which time it should be constantly and invariably present if it is the cause of the morbid phenomena which constitute the disease. But if we admit that the bacilli in question were not developed post mortem we are met by two questions: First, do they bear any relation to the etiology of the disease to which these three persons succumbed? Second, is this *pernicious* fever of the Italian physicians identical as to its etiology with the fevers recognized as malarial in our own country? The writer has long suspected that the *continued pernicious* fevers of the Roman Campagna, and of other parts of Italy, differ essentially from the ordinary intermittents and remittents of this country, and that, while there is undoubtedly a malarial element, in a certain proportion of the cases at least, there is another etiological factor, to which the continued and pernicious form of development manifested by the morbid phenomena must be ascribed. We know that malaria may be associated with the specific poison of typhoid and of yellow fever in such a way as to produce atypical forms of these diseases, and it seems not improbable that the Roman fever is in truth one of these mixed or hybrid forms of disease. In this case the bacillus of Klebs and Tommasi-Crudeli, if it has any etiological import, is probably the factor to which the continued and pernicious form of this fever must be ascribed, and not the malarial germ which the authors named had undertaken to discover. The facts thus far reported give support to this view of the case. Thus in the original experiment of Klebs and Tommasi-Crudeli the injection, subcutaneously, of culture-fluids containing their *bacillus malariæ* produced in rabbits a fever of a continued, rather than of a paroxysmal form, and they point out that the Roman fever in man very quickly assumes a continued form. Now we know that rabbits are very susceptible to the various forms of septicæmia resulting from the multiplication of septic bacteria of various species in the circulating fluid, or in effused serum in the subcutaneous cellular tissue, etc. And we know, moreover, that all of these forms of septicæmia are infectious, and may be transmitted by inoculation from one animal to another. On the other hand, we have no evidence that the rabbit is susceptible to the malarial poison, or that malarial diseases can be transmitted from one individual to another. We have, therefore, no good reason for supposing, with Klebs and Tommasi-Crudeli, that the infectious disease which results from the introduction of their so-called *bacillus malariæ* beneath the skin of a rabbit is identical with the paroxysmal fevers known to us as malarial. In a recent report to the Italian Minister of Agriculture, etc., Tommasi-Crudeli refers to the production of *intermittent* (?) fever in the lower animals by the subcutaneous injection of the blood of malarial fever patients, and states that he made extensive preparations to continue his experiments in this direction during the year 1882, but he was unable to carry out his intention for the reason that "not a single case of *pernicious fever* was received during that period into the Roman hospitals" (Quoted from a paper by Dr. C. P. Russel, MEDICAL RECORD, August 18, 1883, p. 178).

Here, then, we have a confession which makes it evident that the *pernicious fever*, ascribed to malaria by the author referred to, differs from ordinary malarial fevers—intermittents and remittents—which also prevail in Italy, in the essential particular that it is an infectious disease and may be transmitted to the lower animals, as well as in the fact that it is a continued rather than a paroxysmal fever.

I shall not occupy your time with a more extended review of the arguments and facts which have been advanced in support of the parasitic-germ theory, as explaining the etiology of the malarial fevers, but will say to you that I fully agree with Sir Joseph Fayrer, who, in his Croonian Lectures on the Climate and Fevers of India, after giving a summary statement of the various observations and experiments which have been recorded in favor of this view, remarks as follows:

"The existence of malaria as a particulate thing has not yet been demonstrated, and it is still asked if such a thing exist. It may be so; there are circumstances connected with its actions which are difficult to reconcile with a parasitic origin, and, for the present, our attitude with respect to that view should be one of reserve. But who that has followed the progress of pathological investigation during the last quarter of a century would venture to assert that, in such researches as those of Pasteur, Burdon-Sanderson, Lister, Greenfield, Koch, Klebs, Tommasi-Crudeli, and others, we may not find a complete solution of the problem" (*British Med. Journal*, March 25, 1882, p. 415).

Are we then no nearer the solution of the problem than when Bartlett, and Wood, and Aitken confessed their inability to answer the question, What is malaria? I think we are very much nearer, and that we have good reason to hope that a definite answer will be found in the not remote future. But you will all agree with me that this secret, which Nature has so long withheld from the medical philosophers, is not likely to be disclosed by any speculations or discussion which we may indulge in during the few hours allotted to a consideration of the subject at the present meeting of the Public Health Association, and that our time may be more profitably employed in devising measures for the prosecution, in our own country, of experimental investigations designed to settle this question, which, both from a sanitary and from an economic point of view, is of such prime importance to the American people.

If Monfalcon was right in asserting that we are much nearer the truth "when we know that we know nothing," than when we mistake erroneous hypothesis for truth, we must admit that a second step is taken in the same direction when we recognize the method by which truth is to be attained.

Not only do we now recognize the experimental method as the only one which is likely to lead us to a definite solution of etiological problems, but we have learned very much during the past decade with reference to the application of this method to this special line of investigation. But we have done more than this, having, as I believe, made a positive step in the right direction in the demonstration, which we owe to modern science, that the decomposition of organic material is effected by living ferments, and mainly by micro-organisms belonging to the class known as bacteria. We must, therefore, admit that living micro-organisms of some kind are concerned in the development of malaria, if we can establish as a fact, that which is very generally believed to be true, viz.: that the evolution of malaria is con-

nected with the decomposition of organic material of vegetable origin.

This is a proposition which does not meet with universal acceptance, but which seems to the writer to be supported by evidence of the most convincing character. It is necessary, however, in order fully to appreciate the nature and weight of this evidence, to take a broad view of the whole field, and not to restrict our vision to that portion of it which happens to fall within the scope of our personal observations.

Such a broad view may be obtained by considering the facts relating to the prevalence of malarial fevers in the entire United States. If you agree with me that "malaria" is as yet only known to us by its effects, you will not be disappointed if I decline on this occasion to indulge in speculations as to its nature, and devote the remaining time at my disposal to a consideration of the facts relating to the extent and geographical distribution of malarial diseases in the United States.

The materials for such a study I find in the publications of the Surgeon-General's Office, especially in a "Report on the Hygiene of the United States Army," published in 1875 (Circular No. 8), and in the first volume of "The Medical and Surgical History of the War of the Rebellion;" also in the mortality statistics of the last census (tenth).[1]

It is unnecessary to remind you that we have no statistics representing the amount of sickness among the civil population of the United States, and that the sanitary statistics of our decennial census returns relate only to mortality. But for the military population we have, fortunately, very precise data, showing the exact amount of sickness and its nature. As our soldiers are for the most part stationed at military posts which are distributed over the whole length and breadth of the country, they serve as a sanitary test of the diseases due to locality and climate. And, as our statistics for each military post extend over a series of years, we are able to estimate with sufficient accuracy the average amount of sickness and of mortality from diseases of this class, although the number of individuals included in our statistical returns is comparatively small. It must be remembered, however, that our figures relate to selected adult males, and that troops in garrison are often more favorably located as regards sanitary surroundings than is the civil population in the vicinity, especially if this is a scattered rural population. On the other hand, the troops are sometimes subjected to exceptional exposure during their expeditions in pursuit of hostile Indians, etc.; and large portions of the civil population residing in cities are more favorably located as regards exposure to malaria than are our isolated garrisons.

TABLE NO. 1.—*Military Stations upon the Atlantic Seaboard.*

Stations.	State.	Latitude.	Total cases in four years— Of remittent fever.	Total cases in four years— Of intermittent fever.	Total deaths in four years.	Mean strength of command.	Annual ratio per 1,000 of cases of malarial diseases to mean strength.	Mean annual temperature.	Annual rainfall.	Mean temperature for months of July, August, and September.	Amount of rainfall during July, August, and September.
									Inches.		Inches.
Fort Sullivan	Me.	45° 54′	5	17	..	66	83	41.49°	43.09	60.05°	11.11
Fort Preble	Me.	43° 38′	1	14	..	47.25	79	45.25°	36.65	64.25°	9.28
Fort Independence	Mass.	42° 20′	..	16	..	62.25	64	46.46°	40.78	67.19°	10.25
Fort Adams	R. I.	41° 28′	8	60	..	271.5	60	47.95°	37.87	66.96°	9.77
Fort Hamilton	N.Y.	40° 37′	11	695	1	253	697	50.87°	38.18	71.06°	14.81
Fort McHenry	Md.	39° 15′	11	247	..	201	308	55.08°	33.11	74.10°	10.13
Fort Monroe	Va.	37° 02′	50	230	1	374	187	58.19°	42.16	77.55°	10.15
Fort Johnson	N. C.	34°	11	93	..	52.75	492	63.91°	54.63	79.78°	19.35
Fort Macon	N. C.	34° 04′	9	57	..	101.25	162	Not reported.			
Charleston	S. C.	32° 46′	9	128	..	161.5	212	No meteorological report.			
Savannah	Ga.	32° 05′	12	25	..	58.25	158	66.60°	44.05	80.85°	18.63
Key West	Fla.	24° 30′	3	123	1	98.25	317	78.09°	38.58	85.19°	18.34

TABLE NO. 2.—*Military Stations upon the Mississippi and Missouri Rivers*

Stations.	State.	Latitude.	Total cases in four years— Of remittent fever.	Total cases in four years— Of intermittent fever.	Total deaths in four years.	Mean strength of command.	Annual ratio per 1,000 of cases of malarial diseases to mean strength.	Mean annual temperature.	Annual rainfall.	Mean temperature for months of July, August, and September.	Amount of rainfall during July, August, and September.	Remarks.
									Inches.		Inches.	
Fort Buford	Dak. Ter.	48°	20	46	..	279	59	38.01°	14.04	63.65°	3.40	
Fort Benton	Mont. Ter.	47° 45′	..	12	..	56	53	44.39°	11.42	66.09°	4.34	
Fort Stevenson	Dak. Ter.	47° 34′	..	30	..	116	64	38.46°	13.52	64.61°	5.37	
Fort Rice	Dak. Ter.	46° 40′	14	68	..	255	80	41.34°	11.98	66.48°	3.08	
Fort Ripley	Minn.	46° 10′	9	32	..	71	144	35.97°	37.09	61.56°	11.55	
Fort Snelling	Minn.	44° 52′	57	71	..	117	359	42.93°	20.51	68.16°	7.40	
Fort Sully	Dak. Ter.	44° 30′	6	27	..	231	36	47.01°	16.39	72.05°	5.45	
Fort Randall	Dak. Ter.	43° 01′	15	46	..	198	77	47.56°	15.66	71.86°	3.68	
Omaha Barracks	Neb.	41° 20′	..	284	..	411.75	179	50.80°	31.58	75.71°	9.25	
Fort Leavenworth	Kans.	39° 20′	124	592	..	399.75	449	51.88°	38.88	72.73°	13.73	
St. Louis Barracks	Mo.	38° 28′	35	451	1	302.25	402	No report.				
Jackson	Miss.	32° 18′	25	591	4	117	1,316	66.73°	68.28	80.27°	15.66	On Pearl River.
Baton Rouge	La.	30° 26′	86	1,143	3	171.5	1,803	67.82°	65.87	85.76°	18.36	
Jackson Barracks	La.	29° 57′	13	594	1	257	590	66.73°	68.28	80.28°	15.66	Meteorology for 1879 only.

[1] I have not been able to avail myself of the valuable data contained in the two last mentioned publications, for the reason that my paper had already exceeded the limits to which I had intended to restrict it before the material at my disposal in the Report on Hygiene, alone, had received the consideration to which it is fairly entitled.

It is well established that malaria, whatever its real nature may be, is of telluric origin, and that it is evolved more abundantly in rural districts than in cities, where the soil is covered with buildings and pavements.

The data contained in the "Report on Hygiene," published by the Surgeon-General in 1875 (Circular No. 8), embrace a period of four years, from July 1, 1871, to June 30, 1874, inclusive. The figures relating to sickness and mortality are given in tabular form for each year separately, and those relating to temperature and rainfall for each month. These figures relate to two hundred and twelve stations, of which fifty are in the Military Division of the Atlantic; forty-eight in the Department of the South and of the Gulf; sixteen in the Department of Texas; twenty-three in the Department of the Missouri; nineteen in the Department of the Platte; twenty-one in the Department of Dakota; and thirty-five in the Military Division of the Pacific. My time and the limits of our annual volume do not permit of an extended discussion of the data relating to all of these military stations, and for my present purpose I have selected a line of posts located upon the Atlantic seaboard, and extending from Eastport, Me., to the extremity of the Florida Peninsula; and a second line of interior posts extending from the head waters of the Missouri River to Jackson Barracks, La., which is situated on the left bank of the Mississippi, just south of the city of New Orleans.

From the tabular statements given in the report referred to I have estimated the amount of sickness from malarial diseases for each of the selected stations, the annual mean temperature, the annual rainfall, the mean temperature for the months of July, August, aud September, and the average amount of rainfall for the same period. These figures are arranged in two tables on page 255, No. 1 including all of the stations on the Atlantic seaboard, and No. 2 including the posts located upon the banks of the Mississippi and Missouri Rivers.

Our army statistics represent the number taken sick during the time specified, and as the same individual may be taken sick a number of times during the year, with intermittent fever, for example, it is evident that the number taken sick may exceed the average strength of command.

Our distinguished American author, Dr. Geo. B. Wood, who has already been quoted as confessing his ignorance as to the real nature of "malaria," nevertheless had very definite ideas as regards the circumstances which govern its evolution, which he has expressed as follows:

"The circumstances which appear to be essential to the production of miasmata are heat, moisture, and vegetable decomposition. The peculiar morbid effects ascribed to this cause, and by which alone its existence can be recognized, seldom originate at a temperature under 60° F., even though vegetable decomposition may be going on. At 80° they are often very prevalent and are generally checked by the occurrence of frost. A certain continuance of the heat is not less necessary than a certain degree of it. Hence, miasmatic diseases seldom prevail beyond the fifty-eighth degree of latitude; because, though many days in summer may be very hot, the warm season is short. The nearer we approach to the equator, the more violent, as a general rule, do they become, implying a greater intensity of the cause" ("Practice of Medicine," vol. i., p. 157).

Evidently if Prof. Wood is right in considering heat, moisture, and vegetable decomposition as essential factors in the production of malaria, the progress of science since his time justifies us in believing that there is also a *biological* factor; for, as already stated, it is fully established by recent researches that vegetable decomposition does not occur in the presence of heat and moisture and of oxygen alone, but that it is due to the vital activity of low organisms, for the development of which these agents are essential. Here, then, we have a new field for investigation and one in which we may hope for greater success than has attended the efforts of medical philosophers, of meteorologists, and of physicists generally, to solve the question, What is malaria?

But both before and since Dr. Wood's time there have been numerous dissenters from the view that heat, moisture, and vegetable decomposition are essential factors in the production of malaria. If these gentlemen are right our confession of ignorance must go much farther than the admission that we know nothing definite as to the real nature of the malarial poison, and we must admit, also, that we know nothing as to the conditions which control its evolution. Some even go so far as to deny that there is such a thing as malaria, and a variety of hypotheses have been advanced to explain the etiology of malarial diseases independently of the action of a special poison.

Thus Hippocrates attributed tertians and quartans to a superabundance of bile in the *primæ viæ*. The atomists believed that quartans were due to obstruction by atoms of the smallest size, tertians to obstruction by atoms a little larger, and quotidians by those still larger. Werlhof attributed the periodicity of these fevers to the periodical movement of the earth; Mead to lunar influence and to the alternate action of day and night; Bailly supposes that intermittence is occasioned by the daily change of the human body from an upright to a recumbent position; Oldham and others attribute it to refrigeration of the body occurring at night.

We may dismiss all of these hypotheses with the remark that the surgeons of our own and of the English navy have established the fact that when cruising in the tropics the men under their care remain free from malarial diseases so long as they do not approach the land; that in the most malarious regions protection is secured by anchoring a few thousand yards from the shore, and that those who remain on board a ship thus located escape, while the boat parties sent ashore for supplies, etc., are very likely to fall sick with some form of periodic fever after their return to the ship. In short, if there is anything definitely settled in medical science it is that malarial diseases are of *telluric* origin. But they do not prevail everywhere on land. Let us, then, turn to our army statistics to see if they throw any light upon the circumstances which cause this difference as to the prevalence of periodic fevers in different localities.

An inspection of the column in our tables which represents the amount of sickness from malarial diseases (ratio per thousand) shows us that, in general, this is greater in southern than in northern localities. But this is only true as a general statement, and in comparing one station with another we find that the more northern station not infrequently furnishes the larger ratio. Thus the amount of sickness from malarial diseases is greater at Fort Hamilton, in New York Harbor, than at any station south of this point on the Atlantic seaboard, although the mean temperature for the year, and for the summer months, is considerably less than at any station south of this. Shall we, then, conclude that heat is a factor of no importance as regards the development of malaria? This would be contrary to universal experience, which is to the effect that malarial diseases prevail more extensively in summer than in winter and in warm climates than in northern latitudes. We must, therefore seek an explanation of this apparent exception to the general rule, and not throw overboard the broad truth that heat is an essential factor in the production of malaria, as some recent writers are disposed to do as regards this and other well-settled points. The exceptions must, of course, be given due weight, and those which occur in our tables prove conclusively that heat is not the only factor, for in this case the amount of sickness should bear a constant ratio to the temperature of a place, and no locality within the established temperature limits would be free from its due proportion of sickness from this cause.

(To be continued.)

COSMETICS.

Their Constituents and General Effects, with a few Special Cases other than Saturnism.

By JAMES P. TUTTLE, A.M., M.D.,

NEW YORK.

It is a reproach to modern civilization that one should find occasion, in this day of enlightenment, to raise his voice against the use of cosmetics.

Æsthetics has done much to cultivate a taste for natural beauty, but it has not yet taught our ladies to appreciate the natural skin above its artificial equipments, except when they see the latter on a rival beauty's face; and the science of chemistry and art of pharmacy have been exhausted to prepare delicate colorings and bright enamels for the complexion. It seems to have been a conception of the ages past that these adornments added to the personal attractions of men as well as women, inflaming passion and calling forth amorous ebullitions in the opposite sex. That it *should* be held in disrepute will not be questioned, for it was those whose consciences did not falter at whatever means to gain an end—the vicious and vulgar, the harlots and witches—who were the originators of these practices.

Proud Jezebel painted her face to meet the victorious Jehu, and the prophet charges among the abominations of Ahola and Aholibah, "thou paintedst thine eyes and decked thyself with ornaments to meet strange men."

With such unsavory precedents it would seem that this relic of barbarism would hardly find its way into the better classes of society. But, indeed, it has, and is fast gaining ground, becoming less obtrusive and bold, but more disastrous in its effects with every round in the social ladder.

Not only has refinement increased the virulence of cosmetics as a rule, but the more social obligations one has, the more is she compelled to be adorned (?), and have her face pasted, powdered, or painted with these preparations.

Their constant use becomes necessary, because, without exception, those who use them are ashamed to have it known, and the neglect of their artifices for a single day might expose them to their friends or rivals.

In order to recognize and appreciate the effects of these preparations, it is necessary to acquaint ourselves with their general and possible constituents.

Formerly the process of adornment, in the better classes, consisted of very simple preparations, accompanied by much polishing or kneading of the skin, a process, indeed, more healthful than otherwise. Elder-flower water, almond oil, and bean-flower water are examples of the preparations used. Says Samuel Johnson: "I was never allowed to sleep till I passed through the cosmetick discipline, part of which was regular lustration performed with bean-flower water and may-dews."[1]

But this practice did not cover up deformities or remove defects, as freckles, moles, or tan, and stronger preparations began to be sought. Oil of cashew gained a favorable reputation in the removal of sunburn and freckles, but the pain following its use brought it into disrepute.[2] After this the use of corrosive sublimate came into vogue, and rose- or elder-water was beaten down with bitter almonds, and this drug added in varying proportions. Then came the face powders to cover up deformities, in which are incorporated bismuth, calcium, zinc, lead, French chalk, etc. These preparations are largely sold to-day. In 1870 Dr. W. E. Chandler published his report to the Metropolitan Board of Health on "Dangerous Cosmetics." He there showed that, with one exception, sixteen hair tonics which he was able to examine contained carbonate or other compound of lead. The exception, "Hoyt's Hiawatha Hair Restorative," contained nitrate of silver. Sulphur was incorporated with the lead to produce the black sulphide.

[1] Rambler, No. 130. [2] Granger: Sugar-cane. Note to v., 137.

After analyzing a number of "*lotions*," containing, with one exception, "*no injurious metal*," "*enamels*" containing zinc and lead generally, and "*powders*" composed of calcium, French chalk, magnesium, and bismuth, he concludes:

1. With few exceptions, hair tonics, washes, and restoratives contain lead in considerable quantities; that they owe their action to this metal, and are highly dangerous to the health of the person using them.

2. With a single exception, Perry's Moth Lotion, the lotions for the skin are free from lead or other injurious metals.

3. That the enamels are composed of carbonate of lime, oxide of zinc, or carbonate of lead, suspended in waters. The first two classes of enamels are comparatively harmless—as harmless as any other white dirt when plastered over the skin to close its pores and prevent its healthy action. On the other hand, the enamels composed of carbonate of lead are highly dangerous, and their use is certain to produce disastrous results to those who patronize them.

4. The white powders for the skin are harmless, except in so far as their use may interfere with the healthy action of the skin.

I have stated these conclusions in full on account of my respect for their author, and because they come partly at the truth; nevertheless, I shall have to differ materially from the latter three. Carrying the analyses further, I have derived the following:

Preparation.	*Main Constituents.*
Powders.	
Pearl White	Subnitrate bismuth.
Flake White	Carbonate lead.
Saunders' Face Powder	Oxide of zinc.
Complexion Powder	Bismuth subcarbon.
Riker's Face Powder	Carbon, calcium and zinc.
Lotions	
Circassian Cream	Corrosive sublimate.
Kalydor	Corrosive sublimate and potash.
Milk of Roses	Corrosive sublimate, rose water and ol. almond.
Enamels.	
Laird's Bloom of Youth	Oxide zinc and calcium.
French's Grease Paint	Oxide zinc and calcium.
Gouraud's Oriental Cream	*Calomel and water.*
Hagan's Magnolia Balm[1]	Oxide zinc.
Bradford's Enameline[1]	Oxide zinc.
Eugenie's Favorite[1]	Carbonate lead.
Snow White Enamel	Carbonate lead.
Snow White Oriental Cream	Carbonate lead.

It is a popular misconception, into which Dr. Chandler has almost fallen, that only those preparations containing lead are deleterious in their constitutional effects. The fact that mercury is contained in any of these preparations will be a surprise to many of their patrons, and convincing poof that "warranted free from lead" does not make them harmless.

The similar behavior of lead, mercury, zinc, and bismuth with the alkali metals found in the blood would in the beginning suggest an analogy in their physiological effects.

That this expectation has been at least in part met, is exemplified in the differential diagnosis of chronic lead and mercuric poisoning. The acute toxic effects of these drugs are no less similar, and I am persuaded that zinc, and possibly bismuth, may have produced the same general effects.

The assumption that all dangerous cosmetics contain lead is more general than one would suppose, and due to two facts, viz.: formerly the majority did contain it; and secondly, many cases of poisoning closely resembling plumbism have been brought about by the use of these preparations. But the similarity of effects produced by other drugs invalidates conclusions on these grounds, and, moreover, preparations which it is positively asserted have produced acute and chronic plumbism, contain no lead whatever, but salts of zinc, as we shall see further on. Workers in zinc have been fre-

[1] Chandler.

quently attacked with so-called lead-poisoning, said to be due to the latter metal in combination with the zinc, and it is claimed by some that they are even more subject to general progressive muscular atrophy than workers in lead. Furthermore, they are equally subject to constipation, colic, and hemorrhages from the lungs.[1] Says Dr. Bartholow, "All the salts of zinc, when long continued, may produce a train of symptoms not unlike those of lead, viz.: emaciation, pallor, loss of strength, constipation, colic, muscular weakness and trembling, paralysis, etc. The oxide in large doses, and continued for a long time, has produced a fetid breath, wasting, gastro-intestinal catarrh, and feeble-mindedness.[2] Ringer bears similar testimony as to the effects of this metal.[3] Oxide of zinc, used in painting, has produced colic similar to that of lead.[4] To argue contrary to this on the ground of frequent indiscriminate use of the officinal ung. zinci oxidi would be of no avail, as this could be offset by the similar and harmless use of pure carbonate of lead in burns, scalds, and wounds.

That the substances are insoluble offers nothing to the contrary of their constitutional effects, for it is well known that solid particles, finely divided, find their way into the lymphatic, and thence into the general system, more readily than watery solutions.[5]

Of the effects of the local use of mercury, it is unnecessary for me to speak. For its disastrous results one need only consult the nearest work on therapeutics or toxicology. I have seen, in one case, severe salivation produced by the local use of less than three grains of calomel, and torturing cramps and nausea from a weak solution of the corrosive chloride for pediculus capitis. Numerous instances of necrosis, gangrene, and death from equally small doses are on record.[6]

Bismuth is an astringent metal, and besides its effects in stopping up the pores and preventing the healthy action of the skin, it has been known, used as a cosmetic, to produce "clamminess, nausea, and spasms," differing in degree only from those of lead, mercury, and zinc.[7] Notwithstanding such facts, all of these metals are freely used in the cosmetic preparations for sale in every pharmacy, and there is no law to protect the public against them. Lately I have come in contact with five cases of poisoning by cosmetics, confirming the opinion hereinbefore set forth.

Mrs. ——, a lady in good society, came to my office to ask if it were possible to be poisoned by cosmetics. I replied "Most certainly," and she related the following: A few days before, she had begun the use of a new cosmetic, recommended by two of her friends. She applied it while dressing for dinner, and on the second evening, about an hour after the preparation had been on, she noticed a metallic taste in the mouth, and was seized with nausea and "cramps in the stomach." The cramps were severe, but supposing they were due to simple indigestion, home remedies were used to make them tolerable. On the following day small vesicles appeared at the corners of the mouth. The "cramps" continued, and in the evening, after another application of the lotion, they increased and the nausea returned. There had been no diarrhœa, but rather the opposite. On the day after this I saw her, when the cramps had greatly subsided, but the herpial eruption remained about the corners of the mouth; there was not much swelling or tenderness of the gums, but rather increased salivary secretion and constant metallic taste in the mouth. On discontinuance of the use of the preparation, the symptoms disappeared and have not since returned.

Case II., a friend of the former patient, who had been using the same cosmetic, is similar in every respect to the last with the exception of severer cramps perhaps.

[1] Amer. Dispen., 1543. Bot. Kin. Med. Chir. Rev., 1873.
[2] Mat. Med. and Thera., 230.
[3] System Therap., 257.
[4] U. S. Dispensatory, 942. Chemical Gazette, September, 1850.
[5] Foster's Physiology.
[6] Taylor on Poisons. Med. Times and Gazette, ii., 1881; i., 1882, et al.
[7] Am. Encycloped. Yeman's Mich. Board of Health Rep., 1880.

Case III., Miss ——, has used this same preparation for some months. During this time she has been confined to her room several times by "cramp colic," nausea, etc. She has a constant metallic taste in the mouth, and lately has not only lost flesh, but also power in her right arm and leg, and has severe aching pains in her limbs.

I obtained the remaining part of the preparation which my first patient had been using, and on chemical analysis found it to contain almost nothing save pure chloride of mercury and water. To prevent error an unopened bottle of the same was procured from a reputable pharmacist, an examination of which exactly coincided with the first. A little sugar, supposably to give lustre to the enamel, is inserted. And yet this preparation, "Gouraud's Oriental Cream," is labelled "*the most elegant and delicate preparation for the skin ever invented.*" Comment is unnecessary here—further than to add, an average application contains from four to ten grains of the drug.

Case IV., Miss I——, is a young lady who has been using "Laird's Bloom of Youth" for a long time as a cosmetic. She suffers with colics, metallic taste, constipation, weakness, atrophy of the muscular system (and diminished reflex activity?). Numerous instances of injury from this preparation have been related, and some have been published.[1] An examination of the preparation shows it to contain no lead, but oxide of zinc and a small amount of calcium carbonate.

Lately a case from St. Vincent's Hospital was reported in the daily papers of this city as one of "lead poisoning" from cosmetics. Dr. Herold, the physician in charge, was kind enough to tell me that there were some of the symptoms of saturnism wanting, and that the preparation she had been using was "grease paint." I obtained a "stick" of this, and on examination found it to contain no metal save oxide of zinc, with calcium and tallow. This and similar preparations are largely used by theatrical people, under the impression that they are entirely harmless; yet I doubt not much of the colic and malaise, so abundant in this class, is produced by them.

Of the powders containing only calcium, magnesia, and French chalk, I am unable to affirm any constitutional effects beyond those due to stopping the pores of the skin; but they are certainly very prejudicial to the healthful action of that organ, and many a fair complexion has been ruined by their use.

Bismuth is becoming less used on account of its changing its color in the presence of certain gases, and its expensiveness. Here let me say the manufacture of cosmetics is no profitless business. As early as the publication of the *Spectator*, No. 33, it was said, "I have known a physician of learning and sense, after eight years' study in the university and a course of travel into most of the countries of Europe, owe the first raisings of his fortune to a cosmetic wash;" and if I mistake not, some in our present day could see their financial fortunes rise by peddling cosmetics instead of pills.

I have already said enough to anticipate what I shall here add as conclusions from this study.

First.—All preparations which can clog the pores or irritate the skin are prejudicial to the health and beauty of that organ.

Second.—Lead, mercury, zinc, and bismuth, may be absorbed into the system from their application to the skin, produce the same general constitutional disturbances, differing mostly in degree, and are harmful in their respective order.

Third.—Dyspepsia, nausea, constipation or diarrhœa, colic, emaciation, tremors, paralysis, and weak-mindedness, may be brought on by the use of these preparations.

Fourth.—All cosmetics belong to either one or the

[1] St. Louis Courier of Med., 1879. Michigan Board of Health Rep., 1880. Kentucky State Med. Soc., 1881.

other of these classes, produce local or systemic injury, and are therefore unfit and dangerous to use.

Fifth.—A law should be enacted requiring all manufacturers to print in full all articles contained in their preparations, and at the same time prohibiting the sale of those containing the more dangerous metals.

It is futile for manufacturers to sign themselves chemists and M.D.'s, and claim that these are the drugs used by physicians for skin complaints.

An engine with the hand of a skilful engineer on the throttle is a useful thing, but let an ignorant passenger take his place, and it will dash onward to destruction with its precious freight—so, also, with these drugs. As physicians we should learn the best ways to perfect the human skin, and yet we should fail to do our duty to society did we not use every means in our power to check these vicious and dangerous practices.

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SOME OBSERVATIONS ON THE SALINE CATHARTIC WATERS OF SARATOGA,

With the Indications and Contra-indications for their Use.[1]

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Mineral spring waters have been known and acknowledged as efficient remedies in the treatment of disease from the earliest ages. So popular is the confidence reposed in their healing power that not a spring of any value is discovered which does not gain, at least, a local reputation. Mineral waters ranked high among the ancient remedies used for the cure of disease, and the universal favor in which they are now held by all civilized people sufficiently demonstrates that their reputation is thoroughly established. With the modern nations of civilized Europe mineral waters have always been held in high estimation. Karlsbad Spring has been known and patronized as a health resort for more than five hundred years, and has a world-wide fame. In 1880 there were three hundred and ninety-four Americans recorded as being under medical treatment at Karlsbad Springs.

The most eminent English and European physicians prescribe a course of mineral water for their patients very frequently, while the physicians of this country do so very rarely. My observations lead me to believe that a more frequent resort to this class of therapeutic agents by the profession would prove of great benefit in the treatment of a large class of chronic diseases.

That eminent French physician, Trousseau, devoted much time to writing on this subject, and throughout his clinical work, as well as the able work of Prof. Niemeyer, mineral waters are assigned an important place in the treatment of many chronic diseases.

Although mineral waters have been favorite remedial agents with the enlightened nations of the earth for many centuries, it was not until 1670 that they were first fully analyzed. A correct chemical analysis of mineral waters is always of great importance, this only enabling the physician to form correct general views relative to the nature and powers of the remedy. It must be conceded that an analysis, however correct, will not always indicate the disease to which the water is applicable; still, in the majority of instances, it forms an exceedingly valuable guide and one which cannot be overlooked.

The number of reputable mineral springs of the world is very large, the springs of Europe numbering about four thousand three hundred and fifty, France alone containing nearly seven hundred. But in no other country, probably, do mineral waters abound in greater variety than in the United States, the number of well-known springs being about six hundred. It is a subject of sincere regret that their nature, applicability, and proper methods of administration should have been so little studied by physicians at large.

Of the large number of mineral springs in this country, undoubtedly those of Saratoga are the most famous, some of them having a world-wide reputation, as the old "Congress Spring," which was discovered in 1792. This, without doubt, is one of the best and safest saline cathartic waters ever discovered either in this country or Europe. Saratoga owes its wonderful growth and popularity largely to the recognized medicinal merit of Congress Spring water. The advantageous combinations of its salts, and its almost entire freedom from iron, should give it the well-merited preference it has attained as a cathartic water. Its action is prompt and pleasant, without producing debility or intestinal irritation, and it certainly is strong enough for daily use, but not so strong as to produce a reaction.

Professor Chandler, who has analyzed nearly all of the spring waters of Saratoga, including Congress Spring, says: "In submitting my analysis, I take pleasure in saying that a comparison of the same with the analysis by Dr. Steel in 1832 proves that the Congress water still retains its original strength, and all the virtues which establish its well-merited reputation. Its superior excellence is due to the fact that it contains, in the most desirable proportions, those substances which produce its agreeable flavor and satisfactory medicinal effects, neither holding them in excess nor lacking any constituent to be desired in this class of waters."

Congress Spring water contains much the largest amount of bromine of any spring in Saratoga, and it also contains a considerable amount of iodine, placing it in the class of iodo-bromuretted waters, of which very few are known.

Besides the Congress there are five other springs in Saratoga classed as cathartic or saline laxative waters.[1]

The Excelsior and Union Springs were discovered in 1814, but were not tubed till 1859 and 1868, respectively. The water from these springs will be found a mild but pleasant laxative. My observations of their effects lead me to believe that they will be found more useful where an alterative and diuretic effect is indicated than as a cathartic.

Hathorn Spring was accidentally discovered in 1868, while digging for the foundation of a building, and rapidly sprang into favor, probably owing more to accidental circumstances than to any well-considered medicinal qualities; in fact, before its true chemical composition and medicinal action was known.

Hathorn Spring is the strongest natural spring yet discovered in this country.[2] The strongest mineral waters, like the strongest medicines, have their sphere of usefulness in the treatment of certain diseases, and often prove of immediate benefit; but that they are capable of doing irreparable injury is well known by all physicians who are familiar with their action. My own observations of the effects of Hathorn Spring water have been that many cases of severe stomach and intestinal irritations are caused by any freedom in its use.

Serious treatment by an active, complicated agent, such as this water is, demands constant medical supervision by an experienced physician, who thoroughly understands its present chemical composition. Since this water was analyzed by Professor Chandler, in 1869, the spring has been re-dug and re-tubed, changing its depth and the lower end of tube several feet in a lateral direction. Recent tests seem to show quite a change in its chemical composition, especially in the amount of iron which it is now shown to contain. By published analysis this spring contains much the largest amount of iron of any of the springs classed as cathartic waters. This fact seriously challenges its safety when prescribed or used

[1] Read before the New Haven Medical Society, December 3, 1883.

[1] Saratoga Mineral Waters, by Dr. W. O. Stillman.
[2] Johnson's Encyclopedia.

freely or indiscriminately, as it so often has been. An eminent physician says, "One grain of iron in mineral water, in combination with carbonic acid gas, is more potent than twenty grains of the Pharmacopeia."

Trousseau says: "We long regarded iron as a harmless agent, which it was not easy to abuse; now that we have grown a little old in practice we declare that we have repeatedly seen patients whose death seemed to us due to the untimely use of strong iron waters."

Ringer remarks: "There are individual peculiarities in respect of iron. Some persons cannot take it in any form, not even a single dose of a weak ferruginous water. The digestive organs of some patients are easily upset by it."

When iron is present in quantities of a grain or more to the gallon the spring is called a chalybeate.[1] This spring, therefore, should be considered and classed as a saline, chalybeate water, and should only be prescribed for those diseases to which this class of waters is applicable.

The Geyser and Champion Spouting Springs are located about one and one-half mile south of Congress Spring, and were brought into existence and notice during 1870 and 1871, by boring through solid rock. The Geyser has a bore five and one-half inches in diameter, one hundred and thirty-two feet in depth. The Champion has a tube two inches in diameter and is three hundred feet deep. So great is the evolution of carbonic acid gas that the water spouts through a two-inch nozzle to the height of eighty or one hundred feet.

The waters from these springs resemble each other very closely in chemical composition, the Champion being the stronger of the two. They are, therefore, therapeutically indicated in essentially the same class of diseases. The mineral impregnation of these waters is very great, so much so, that rapid incrustation of lime occurs on whatever is placed within reach of their spray.

In all of the Saratoga waters the principal constituents are chloride of sodium, the alkaline carbonates, and carbonic acid gas. Chloride of sodium is one of the most important elements in all organic substances. It is contained in large quantities in all tissues and liquids of the human system. When introduced into the stomach it excites the secretions of gastric juice and favors peristaltic action, and when taken in considerable quantities is distinctly aperient. It seems quite certain that a considerable quantity of chloride of sodium taken into the circulation increases the excretion of nitrogenous products, accelerating the transformation of tissue.

In speaking of the uses of the saline cathartic waters of Saratoga, I shall confine my remarks to a few observations (of a general character only) on their medicinal application in the treatment of disease. Special directions can only be given with safety to the patient from a careful investigation of the particular symptoms and character of each individual case. The necessity and benefits to be derived from an occasional cathartic to most persons few will deny. The most satisfactory results constantly follow this cleansing process. The advantages in such purgation in aiding the operations of the intellectual and imaginative faculties, is perhaps not known or admitted; yet we have no less considerable authority than that of Dryden and of Byron on this point. Dryden says: "When I have a grand design I ever take physic; for when you would have pure swiftness of thought, and fiery flights of fancy, you must have a care of the pensive part, in fine you must purge the belly." And Lord Byron observes: "The thing that gives me the highest spirits (it seems absurd, but true) is a dose of salts; but one can't take them like champagne." And we have far more ancient testimony to the same effect. We are told that Carneades, one of the most famous disputants of antiquity, was accustomed to take a copious dose of white hellebore, a great aperient, as a preparation to refute the dogmas of the Stoics.[2]

[1] Johnson's Cyclopedia.
[2] Disraeli's Curiosities of Literature.

Saline cathartic or laxative waters increase the appetite and improve the digestion. After absorption we get increased activity of the secreting organs, by which these salts are eliminated from the blood, as well as increased activity in the gastro-intestinal glands, by which the digestive fluids are secreted, and in this way they act as stimulants to digestion, the peristaltic action of the stomach is accelerated and its contents are more rapidly removed.

The strong, harsh, saline waters produce watery alvine ejections, and if long continued an irritation and even inflammation of the intestinal canal. This is a point to be borne in mind, and it should not be overlooked in prescribing this class of waters. Chloride of sodium waters above a medium strength are irritating to certain constitutions, and capable of exciting gastric catarrh.

In many diseases there exists a state of the intestinal canal, giving rise to the retention of its contents, which is not to be obviated by the occasional administration of an ordinary cathartic. In such cases the drinking of a large quantity of carbonized mineral water leads to a sort of general flushing out of the sewers of the system and promoting those changes of the tissues of the body so necessary to healthy nutrition. It helps us to get rid of the old, the worn out, or half worn parts of us, and it helps us to build up a new and better man. Frequent and copious dejections are not desirable, as this would eliminate the greater portion of the salts, and thereby frustrate their absorption; one or two free daily evacuations are sufficient for patients under treatment. However, it seems to be the general opinion of mineral water drinkers that a cure can only be effected by much purging. It is always well to remind patients that the advantages of having recourse to these waters is often felt more after than during active treatment.

The saline cathartic waters of Saratoga have proved of great value and are therapeutically indicated when it is found necessary to increase the activity of the stomach and intestines, to improve digestion and assimilation, and to promote absorption. They are therefore applicable in a long list of maladies arising from congestion or obstruction in the abdominal organs.

In constipation and in hemorrhoids occurring as a result of constipation these waters have achieved some of their greatest results.

In abdominal plethora they afford prompt and grateful relief. With students and professional men of sedentary habits their action is peculiarly happy, relieving a variety of nervous phenomena, promoting sleep and tranquillity.

Jaundice, when due to catarrh of the biliary duct or obstruction from biliary calculi, engorged conditions of the liver, when not occasioned by organic disease, are especially amenable to their use. In enlarged spleen, produced by intermittent fever, and also in chronic malarial diseases these waters may be employed with great confidence in their ultimate success.

These waters have for many years enjoyed an immense reputation in the treatment of scrofula and all affections commonly associated with it, and the best results have undoubtedly often been attained. Dr. Steel says: "Experience has abundantly sanctioned the belief of their utility in this disease, and since iodine was discovered in these waters they are prescribed in these affections with a confidence which the importance of this agent is calculated to impress."

Congress water contains much the largest amount of bromide of sodium and also iodide of sodium of any spring in Saratoga, making it a valuable water in the treatment of this class of disease. In chronic eczema this class of waters has accomplished many cures. Excellent results have followed their use in herpes, acne, and psoriasis.

In chronic congestion of the brain or spinal cord, or their meninges, attended with constipation, the simple

cathartic waters are often of immediate benefit. They relieve blood-pressure by draining off the superabundant serum of the blood, without sacrificing its more vital elements or exerting any irritating influence. But in these conditions those waters containing any appreciable amount of iron are to be strictly forbidden.

When it is desirable to act freely on the bowels, when constipation is obstinate and habitual, or there is fullness of blood, and depletion is needful, much time may be saved by beginning treatment with a mercurial or saline cathartic, sufficient to move the bowels freely.

The best time of the year to carry out an effective course of mineral water must be decided by circumstances. In the majority of cases they may be advantageously employed at all seasons of the year. The old idea that they were not admissible in winter has been entirely abandoned.

Many diseases do not admit of delay, and for this purpose the bottled waters are quite as effective as when fresh from the spring. The best time of the day for drinking is in the early morning when the body is refreshed by rest, the mind tranquil, the stomach empty, and the quantity of fluid in the system being much diminished the water is more easily absorbed. At least a quarter of an hour should elapse between each glass, and a full half hour between the last glass and breakfast. All persons using mineral waters should dress warmly, the diet should be simple and easy of digestion, and in cases where the digestive organs are seriously implicated, the water should be taken warm, and much gentle exercise in the open air should be taken.

Patients are often sent to the springs with positive directions from their physicians to drink so many glasses of a certain spring water per day, whether it agrees with them or not, when in all probability the water may be the most prejudicial to which they could resort. Used in this hap-hazard manner, it is not strange, that many leave the springs not benefited, or in a worse condition than when they arrived.

A more accurate knowledge of the component parts of these waters will do much to prevent the mistakes and injury so often done.

It is a subject of daily observation during the drinking season in Saratoga to see numerous individuals using mineral waters that are not adapted to their case, and to see those to whose cases they are adapted using them so improperly as to entirely prevent the good they would accomplish if properly administered.

In France, Germany, and England the advice of a competent physician, who is well acquainted with the nature and peculiarities of the waters, is considered of so much importance that at many of the springs persons are actually forbidden to take the water without such advice.

A CASE OF SYMPATHETIC SEROUS IRITIS, WITH REMARKS.[1]

BY DAVID WEBSTER, M.D.,

PROFESSOR OF OPHTHALMOLOGY IN THE NEW YORK POLYCLINIC.

SEROUS iritis is a comparatively rare form of sympathetic inflammation. During about fifteen years of ophthalmic practice, in which many thousands of patients with diseases of the eye have come under my observation, I have never seen, to the best of my recollection, but a single uncomplicated case, the one which is herewith reported.

Fortunately, of late years, the cases of sympathetic inflammation of all kinds that come under the care of the ophthalmologist are comparatively few. The offending eye is now generally enucleated while the fellow eye is in a state of sympathetic irritation only, and before true sympathetic inflammation has set in. It is true that cases have been reported in which sympathetic inflammation has attacked the remaining eye after enucleation of the lost or injured eye, but such cases are so uncommon that very few ophthalmologists have ever met with them.

There can be no doubt that the proper time to enucleate is during the stage of sympathetic irritation. But we do not always have a well-marked stage of sympathetic irritation. True sympathetic inflammation may be ushered in without any premonitory symptoms. What shall we do in such cases? My answer is, if the eye causing the sympathetic inflammation is hopelessly blind, enucleation should be resorted to without delay. I believe that in the vast majority of cases the other eye will be saved if the one causing the sympathy is enucleated within a day or two after the first symptoms of sympathetic inflammation have shown themselves, no matter what variety of sympathetic inflammation we have to deal with. My own experience is limited to two cases. The first was a case of sympathetic keratoiritis, with adhesions, and was published in the *Archives of Ophthalmology*. The eye recovered rapidly after the enucleation of its fellow, in which was found a piece of gun-cap, and still has vision $\frac{20}{30}$. It was at the last examination apparently perfect in all respects. The second case is the subject of this paper.

I do not like the idea, advocated by some, of enucleating every eye that is liable to produce sympathetic trouble, even although it be hopelessly blind. A blind eye often looks better than an artificial eye, and subjects the wearer to much less expense and inconvenience. It is a matter of common observation that if the eye of a child is enucleated the corresponding side of the face is subject to an arrest of development in a marked degree. In many cases progressive contraction of the orbital cavity occurs, so that the patient is compelled to change the artificial eye for a smaller one until, finally, not even the smallest one can be worn. In other cases there is an obstinate conjunctivitis of the cavity, with a slimy mucous secretion, or a constant overflow of tears, resisting all methods of treatment, and subjecting the patient to great annoyance.

I would, as a rule, then, not enucleate, for fear that sympathetic irritation or sympathetic inflammation might occur, but would warn the patient of such a possibility, and would try to impress upon his mind the necessity of consulting a competent surgeon without delay, if the fellow eye should become painful, lachrymose, sensitive to light, or its vision at all blurred.

I am in favor of enucleating a totally blind and useless eye, at the earliest possible moment, *for sympathetic inflammation of every kind*—always supposing that the eye sympathetically inflamed has not been already lost before the case comes under observation. I am aware that, in this opinion, I am not in accord with Mauthner, of Vienna, and many others. Mauthner's "creed" is as follows: "Enucleation *may* be performed as a preventive; it *must* be performed in the stage of irritation; it *must not* be performed in serous iritis and plastic iritis; it *may* be performed in plastic irido-cyclitis, provided the eye causing sympathy is totally blind, but not in a state of violent irritation."

As I have stated above, my own experience has shown that it *may* be performed, and with the best results, in both serous and plastic iritis, despite the authority of Mauthner, Samelsohn, and others. I would not be willing to assume the responsibility of advising *against* enucleation in sympathetic iritis, except in cases where there was a fair prospect of the recovery of useful vision in the eye causing the sympathetic inflammation.

It is remarkable that high authorities differ as to the *diagnosis* of serous iritis. Adolf Alt, who wrote the best book that ever was written on the pathology of the eye, says ("Lectures on the Human Eye"): "Serous iritis does not seem to materially alter the anterior endothelial coat. The uveal layer, however, is mostly altered in such

[1] Read before the Medical Society of the State of New York, February 5, 1884.

a way that its elements become remarkably glutinous, and the posterior surface of the iris thus becomes *adherent to the anterior capsule* of the crystalline lens. . . . If the pupillary edge of the iris has thus become glued to the anterior lens capsule, it often happens that the exudation in the posterior chamber presses the periphery of the iris forward into the anterior chamber, and thus causes the iris to become what has been styled crater-shaped." Mauthner, on the other hand, says ("Sympathetic Diseases of the Eye," Webster and Spalding's translation, p. 75): "It should, moreover, be distinctly borne in mind that we are not directly to diagnosticate serous iritis on account of the presence of nodules of exudation, but to look about for other alterations in the eye. If, for example, we have simultaneously an inflammatory *adhesion of the margin of the pupil to the anterior capsule of the lens*, it would be wrong to call the case one of serous iritis. The precise difference between a serous and a plastic iritis lies in this fact, that in the serous form there is not a sufficient degree of plastic inflammation to effect any such adhesion between the edge of the pupil and the capsule." Most ophthalmic surgeons would here agree with Mauthner, and would call Alt's case, with "crater-shaped" iris, one of plastic iritis.

Wells says ("Diseases of the Eye," fourth American edition, p. 335) that sympathetic serous iritis is "much less common, and much less dangerous than sympathetic irido-cyclitis, but it may pass over into the latter." I should hope and expect to prevent its "passing over into the latter" by the prompt enucleation of the offending eye.

The case I have to report is as follows:

April 10, 1883.—Maggie O'G——, six years of age, while playing school with a little girl on her father's front stoop, was struck in the left eye by a fragment of a glass bottle, thrown by her little cousin. She was taken immediately to the family physician, Dr. George L. Simpson, who said that he feared the eye was lost, applied a bandage, and instructed the parents to bring the child to me without delay. I saw her about an hour after the injury occurred. She vomited from the shock of the injury both on the way and while in the office. I found the eyeball in a state of collapse, apparently less than two-thirds its normal size, its contents mixed with blood, and across its anterior surface, extending through the whole width of the cornea and through the ciliary region on one side, an irregular wound through which a large mass of bloody vitreous was protruding.

I gave the father an unfavorable prognosis, but concluded to try to save the eyeball without any expectation of vision. A retentive flannel bandage with absorbent cotton was applied, and a little paregoric was ordered to be taken if necessary to relieve the pain.

The child was under my observation, from this time on, at the New York Polyclinic, where she was seen three times a week, Dr. Simpson attending to her himself on the alternate days. The eye was carefully washed, daily, and the bandage reapplied. There was very little pain, and almost no apparent inflammatory reaction. The eyeball rapidly plumped up, and soon attained a normal degree of tension. The protruding vitreous gradually disappeared as the wound healed, and the blood was absorbed from the anterior chamber. There was anterior synechiæ, and an opaque mass in the misshapen pupil which made examination of the interior of the eye impossible. At one time the child seemed to see a little with the injured eye, counting fingers near at hand with uncertainty. From the first, however, there was considerable photophobia, and about three weeks after the injury it was observed that the child involuntarily kept looking to the left. About this time the injured eye became more inflamed and irritable, and it became more difficult to examine it.

On May 10th, exactly one month after the injury, slight irritation of the right eye was observed. The next day, as there was the least blush of redness of the sclera, I thought it prudent to determine whether a sneaking iritis had not set in. I therefore dropped into the eye a drop of a four-grain solution of atropine. The next day (May 12th), I saw the patient at the office. The pupil was abnormally widely dilated, and ophthalmoscopic examination showed the presence of numerous minute dots scattered over the lower half of the membrane of Descemet. It was now evidently a case of sympathetic serous iritis.

Upon consultation with Dr. C. R. Agnew we were both of the opinion that the sooner the offending eye was removed the better. I therefore enucleated it on the same afternoon at the Manhattan Eye and Ear Hospital, Drs. Simpson, Valk, Cleaveland and Ray assisting. A bandage was applied, and the house surgeon was instructed to put just enough atropine into the right eye to keep the pupil dilated, in order to prevent the formation of adhesions.

On May 14th, the second day after enucleation, it was noted, "eye looks much brighter; no photophobia or pain. The punctate opacities of Descemet's membrane are fewer in number."

"May 17th. Very marked decrease in spots on Descemet's membrane. No pain or photophobia."

"May 21st. Child discharged from the Hospital with only a few minute spots on lower part of cornea."

The child did well from this time on. I saw her again at the Polyclinic on May 25th, when I could no longer find any traces of the serous iritis. I now directed the parents to have the child fitted with an artificial eye.

I saw the patient for the last time on June 28th. She seemed perfectly well, and wore her artificial eye with comfort. Her attendant informed me that she was under the pleasant delusion that she saw with it. As the child had not yet learned her letters it was difficult to ascertain the exact amount of her vision. I satisfied myself, however, that it was unimpaired.

The following is the microscopical examination of the enucleated eyeball by the Pathologist of the Manhattan Eye and Ear Hospital, Dr. T. Mitchell Prudden: "Anterior epithelium of cornea irregular; substantia propria densely and irregularly infiltrated with pus. The iris has partially coalesced with the cornea, obliterating the anterior chamber, the whole forming a densely cellular mass containing many pigmented cells. The posterior chamber is filled with a mass of new-formed connective tissue, rich in cells, which closely surrounds the anterior portion of the lens, and has grown into an irregular opening (wound) in one side of that body. The ciliary processes are irregular, and the inner layer, together with the pigment layer, densely infiltrated with pus-cells. The anterior portion of the vitreous contains many scattered pus-cells. The vessels of the choroid are congested, and in many places in their immediate vicinity are dense infiltrations of pus-cells. The retina is partially detached in its anterior portion, and slightly œdematous, especially in the layer of rods and cones; otherwise, it is normal. Anatomical diagnosis: Wound of cornea, iris, and lens: keratitis, irido-cyclitis, and purulent choroiditis; obliteration of anterior chamber."

A New Treatment for Neuralgia.—The latest agent introduced for the relief of neuralgia is a 1 per cent. solution of hyperosmic acid, administered by subcutaneous injection. It has been employed in Billroth's clinic in a few cases. One of the patients had been a martyr to sciatica for years, and had tried innumerable remedies, including the application of electricity no fewer than 200 times, while for a whole year he had adopted vegetarianism. Billroth injected the above remedy between the tuber ischii and trochanter, and within a day or two the pain was greatly relieved, and eventually quite disappeared. It would be rash to conclude too much from these results, in the face of the intractability of neuralgia to medication, but if it really prove to be as efficacious as considered, hyperosmic acid will be a therapeutic agent of no mean value.

TWO CASES OF EMPYEMA.

By F. H. DILLINGHAM, M.D.,

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THERE being so much discussion by the medical profession on the subject of empyema, I have thought that the history of the following cases, which occurred during my service in the hospital, might be of interest.

CASE I. *Empyema; free incision; recovery.*—Patrick C——, twenty-six years of age, U. S., single, bricklayer, was admitted to the medical ward of St. Francis Hospital (Dr. John H. Ripley, visiting physician) May 6, 1881. Parents living, also three brothers and two sisters. One brother dead. No evidence of syphilis. Has suffered from chronic rheumatism in right knee and thigh for the past eighteen months; otherwise has been perfectly well until May 3d, when on waking in the morning he was taken with nausea, vomiting, and "a catching in the right side below nipple." Has pain in coughing, and feels better when he is lying on his right side. Has considerable dyspnœa, but has had no chill.

On admission patient was very weak, and breathing with great difficulty. Examination showed the apex-beat under the left nipple; flatness both anteriorly and posteriorly over the entire right lung, and absence of vocal fremitus and respiratory murmur, except at apex, where there was bronchial breathing. Over the left lung there was exaggerated breathing. Liver dulness extended to level of umbilicus. Temperature, 105⅘°; pulse, 120. Urine examined with negative results. Quinine and brandy ordered.

May 7th.—Examined by Dr. Ripley, who ordered aspiration, which was done, but no fluid found. Temperature A.M., 102⅘°; P.M., 104⅘°.

May 8th.—Patient about the same. Temperature in the morning, 103°; evening, 105°; pulse, 118.

May 9th.—A very long hypodermic needle was introduced four times, in different places, by Dr. Ripley, but no fluid obtained. Physical signs the same as on admission. Temperature A.M., 103⅗°; P.M., 104°; pulse, 114.

May 11th.—Hypodermic needle introduced twice, with the same result as before. Temperature A.M., 102°; P.M., 104⅘°; pulse, 120.

May 15th.—Hypodermic needle again introduced, but no fluid found. The temperature has been about 101° mornings, and 104° evenings.

May 19th.—No change in physical signs or temperature range. Patient takes very little nourishment. Hypodermic needle used to no purpose.

May 20th.—Patient has been gradually growing weaker. Tr. ferri acetatis, gtt. xv., t. i. d., ordered.

May 25th.—The last three days has been growing a little stronger. Hypodermic needle introduced, and a little clear serum drawn off. About the same range in temperature.

June 5th.—Temperature has varied between 100° and 104⅘°. Decided to aspirate, which was done, after finding fluid with the hypodermic needle. Only succeeded, however, in drawing off about two ounces, containing a trace of pus.

June 6th.—No change in the physical signs. Patient has been gaining very slowly. Temperature A.M., 100⅕°; P.M., 105°; pulse, 104.

June 10th.—Has been very slight reduction in temperature. Hypodermic needle inserted and a little fluid found, containing a larger percentage of pus than before.

June 15th.—The only place where fluid could be found was on the right side, anteriorly, between the fifth and sixth ribs, nearly under the nipple, where I aspirated him, and drew off about a pint of slightly purulent fluid. Temperature has ranged between 100⅘° and 103⅗°.

June 17th.—Blistered anteriorly on the right side, without much beneficial result.

June 20th.—Very good breathing posteriorly over right lung, nearly to angle of scapula. Liver and spleen slightly enlarged.

June 24th.—Commenced to sit up a little. Hypodermic used and the fluid drawn off was more markedly purulent.

July 4th.—Patient has been growing worse the last few days. Hypodermic needle introduced several times, but no fluid found. The temperature has ranged between 100° and 104°; pulse, about 100.

July 6th.—As the patient has been failing fast, it was decided to open the pleural cavity by free incision, which Dr. Ripley kindly intrusted to me. No anæsthetic was used. The needle was introduced several times with no success, except in the fifth intercostal space, in the mammary line, where pus was found. I then made a free incision at this point, with a sharp-pointed bistoury, and, introducing two directors, withdrew the knife, when sixty ounces of pus were slowly and interruptedly discharged. During the process of drawing off the fluid, the flow would suddenly cease, when, after an explosive cough, a large caseous mass would be expelled through the wound, and the discharge begin again. This was repeated several times.

The pus was very thick and fibrinous, and contained large cheesy masses. The cavity was washed out with warm water, and a drainage-tube inserted, the wound covered with oakum supported by a bandage, the patient feeling very much relieved.

July 7th.—Has passed a good night, and feels much better. Dressing removed, and the cavity washed out; considerable pus in the water. Temperature A.M., 98⅘°; P.M., 101⅘°; pulse, 96.

July 14th.—Patient has had a little diarrhœa the last four days, which has now ceased. Temperature varies between 98⅘° and 101⅘°.

July 15th.—Is feeling much stronger, appetite good, and sleeps well. Discharge diminishing.

July 17th.—Patient sitting up; there has been a great improvement in every respect.

August 23d.—He is up and around the wards all day. Temperature has ranged between 100° and 103°, in spite of remedial measures. On account of this, the desirability of making a counter opening was discussed, but at the patient's request, and as he was growing no worse, it was deferred. The drainage-tube was changed for a shorter one.

August 25th.—Discharge has begun to become less, and a little clearer. Temperature slightly diminished.

October 4th.—Patient is feeling very well, and able to do a little light work in the hospital.

November 10th.—Has been gradually gaining. Very little discharge.

December 1st.—A smaller and shorter drainage-tube inserted.

December 10th.—No discharge, and the water returns perfectly clear. Temperature has ranged from normal to 103°, but after this did not go above 100°.

December 20th.—Patient has rapidly improved. Temperature normal. No discharge, and only a few ounces of water can be forced in the cavity. Drainage tube removed, but oakum used to keep the opening from closing.

January 10th.—Patient's appetite is good, and he is getting fat and strong. He was advised to leave the hospital, as he would do much better outside, but as he had no home, he preferred to remain and perform the duties of surgical orderly.

He served as orderly for some months, and when he left the hospital was strong and well. The wound was nearly closed, there being no discharge. It was retarded to a great extent by his confinement and work in the surgical wards.

CASE II. *Pulsating empyema following pyo-pneumothorax; free incision; temporary relief.*—Henry F——, twenty-six years of age, U. S., married, cigar maker, admitted to the medical ward of St. Francis Hospital (Dr. John H. Ripley visiting physician) April 6, 1881. His father was killed in the war, and his mother died during menopause. Two brothers living and

well. No evidence of syphilis. He had always been healthy, until about ten months before his admission, when he began to be troubled with a cough, with yellowish sputa, and slight night sweats. He had no dyspnœa or pain, but lost considerable flesh and strength. During the summer, his cough was so severe that it often caused emesis.

In December, 1880, during a violent attack of coughing, he was seized with a sharp pain in his left chest, followed by great dyspnœa, cold sweats, blue extremities, etc. He improved a little, and then remained about the same until the first of March, when he found himself growing weaker and the dyspnœa increasing.

For the four weeks previous to admission, he had not had any chills or night sweats, nor had his cough been so distressing.

On examination, patient was very weak, and his dyspnœa so great that he could not lie down or sleep. Has considerable cough and no appetite. Face and neck cyanotic, and slight increase in size of abdomen, especially on the left side. Apex-beat nearly at right nipple. Temperature 101⅘°; pulse, 120.

On physical examination of the chest, flatness on percussion was found over the lower three-fourths of the left lung; above this it was tympanitic, the level of flatness varying with change of position. Over the lower three-fourths there was absence of respiratory sound; and above amphoric respiration and metallic tinkle. Succussion was well marked. Over the right side there was exaggerated breathing. The urine was examined with negative results. Cough mixture and plenty of stimulants ordered.

The next day (April 7th) I aspirated him and drew off forty ounces of pus. During the operation he showed signs of syncope, and it was necessary to give him hypodermics of brandy. An hour after he felt very much relieved; his dyspnœa was greatly lessened, but his pulse was very weak. Temperature A.M., 100°; P.M., 99⅘°.

April 8th.—Has been able to lie down and sleep a little during the night; feels stronger, but his cough is still troublesome. Temperature A.M., 99⅘°; P.M., 100⅕°. Tonics ordered.

April 9th.—Had a good night's rest. Commences to eat a little, and is slowly improving. Temperature A.M., 98⅘°; P.M., 99°; pulse, 100.

April 14th.—Dyspnœa is increasing; aside from this, feels pretty well.

April 15th.—Aspirated, and seventy ounces of pus drawn off; but he became so weak that it was necessary to stop before the cavity was emptied.

April 16th.—Feels better than he has for two months, appetite very good. Temperature has not been above 99°.

April 23d.—Has been doing nicely until to-day, when he began to be troubled by dyspnœa.

April 25th.—Was again aspirated, and sixty-three ounces of pus taken out; the patient standing the operation very well.

May 4th.—Has been steadily gaining in strength, but begins to be troubled by the fluid.

May 6th.—Drew off fifty-eight ounces of pus by aspiration. The operation was well borne.

May 7th.—Is beginning to sit up, appetite good, and sleeps well; brandy stopped altogether.

May 15th.—Patient sits up all day, and feels very well; only tonics continued.

June 8th.—Aspirated, and twelve ounces of pus taken out.

June 20th.—He is feeling so well, that he wishes to go home.

Examination shows, posteriorly, over the left lung flatness over the lower fifth; above slightly tympanitic. Amphoric breathing above, and absence of respiratory sound below the level of the fluid. On the right side, the percussion note was hyperresonant, and there was exaggerated breathing. In front on the left side, percussion sound slightly dull as far as the third rib, where the dulness begins to be well marked. At the apex of the right lung slight dulness and broncho-vesicular respiration; below the breathing is exaggerated. Succussion very feeble.

June 21st.—Refuses to remain any longer, and so was discharged. Feels quite strong, appetite good, and sleeps well; very little cough.

The patient came to see me on July 7th, and there had been a great improvement since he left the hospital; he had gained in flesh, and was feeling quite well.

Examination showed about the same condition as when he was discharged; there did not seem to be any increase in the amount of fluid. He was readmitted to the hospital October 21st. He said that he had been doing nicely until the first of September, when he began to be troubled by dyspnœa and cough. His appetite failed, and he could not sleep. These symptoms gradually grew worse until his admission, when he was found suffering from intense dyspnœa, and could only lie on his left side. The left side of his neck and face was markedly cyanotic and œdematous. There was considerable bulging of the left side of the chest, with distinct pulsation. Flatness over the whole lung, extending about two inches below the twelfth rib, in the axillary line. When the hand was applied to the surface, a marked heaving impulse was transmitted to it. Auscultation over the tumor gave negative results. Of course aneurism was considered, but its existence was considered very improbable. The right lung was emphysematous. Apex-beat beyond the right nipple. Dr. Ripley was called, and, after drawing off a syringeful of pus by the hypodermic needle, decided to operate at once by free incision (October 21st, 5.30 P.M.). The patient being so weak no anæsthetic was used.

In view of the extraordinary symptoms attached to the case, it was decided to make a small opening with a sharp-pointed bistoury at first. This was done just below the twelfth rib, two and a half inches from the spinal column, and there flowed from the wound a small stream of about equal parts of bright red blood and thick yellowish pus. A director was introduced by the side of the bistoury, and the latter withdrawn. After being passed in to the depth of about an inch and a half, its further progress was arrested by coming in contact with a pulsating body, which seemed to be the real cause of the bulging. In the meantime, blood and pus continued to drain away along the groove of the director. While the point of the instrument was pressing lightly against the circumference of the tumor, it suddenly perforated the sac, and an increased flow of pure pus from the wound followed. The opening was then enlarged, and one hundred and fifty-six ounces of pus were removed. By this time the patient began to show signs of syncope, and the flow was stopped by compresses. Stimulants were freely given.

October 22d.—Patient has slept about six hours during the night. The dressings being removed, about twenty-five ounces of pus were discharged. The cavity was washed out with water the temperature of the body and a drainage-tube inserted. After this he felt very comfortable.

October 24th.—Wound dressed twice a day, still considerable discharge. Patient feels a little better, but his appetite is poor and stomach very irritable. Temperature normal. Pulse rapid and weak.

October 27th.—Has improved very slowly, but sleeps well. Cavity only washed out once a day, discharge diminishing.

November 2d.—Discharge less, but he has no appetite, has colliquative diarrhœa.

From this time his diarrhœa persisted, despite remedial measures, and he refused to eat. He gradually became weaker until November 16, 1881, when he died from exhaustion at 11.20 P.M.

At the autopsy, twelve hours after death, the body was

very much emaciated. The diaphragm extended to the sixth rib on the left side, and the fifth on the right. The incision was just below the twelfth rib, two and a half inches from the spine, and in the most dependent portion of the cavity. The left pleural cavity contained several large clots of blood, but no pus; and was covered with an old, thick, pyogenetic membrane.

Careful investigation failed to show the source of the hemorrhage. The lung was in a complete state of atelectasis, consisting only of a mass of slate-colored indurated tissue, about the size of a hand, having a few small cavities in the apex. The right lung was emphysematous, otherwise normal. The heart was pale and flabby, and firmly united to the pericardium by old adhesions. The valves were normal, but there was commencing atheroma in the aorta. Liver fatty and slightly enlarged. Spleen and kidneys pale, otherwise normal.

Progress of Medical Science.

Vaccinia and Variola.—In a recently published report, Dr. Voigt, the Superintendent of the Vaccine Institute at Hamburg, sums up the results of his observations under nine heads, which may be looked upon as an epitome of the whole question (*British Medical Journal*, December 22, 1883). 1. It is possible to create vaccine by the inoculation of the calf with lymph from the pustules of human beings the subjects of small-pox, but success must not be expected in every case. 2. The energy of variola-vaccine obtained in this way is such that it is not fit for the purpose of vaccinating human beings until it has been several times transmitted from calf to calf, or from ox to ox, and its intensity has been thus diminished. 3. In the first year this new lymph has a greater protective power than animal lymph of older stocks. 4. Vaccinia and variola are derived originally from the same contagium, and give to those affected by them an immunity one against the other. 5. The duration of this immunity depends on the intensity of the pathological process. 6. After the lapse of twelve years, persons who have been attacked with small-pox show the same susceptibility to vaccination as those who have been vaccinated at an equally remote period; consequently children of twelve years of age, vaccinated in infancy, present a moderately favorable soil for the poison of small-pox. 7. Therefore, revaccination of all children at or even after the age of twelve is highly to be recommended. 8. Animal lymph, originally very active, diminishes in efficacy when transmitted from calf to calf sooner than humanized lymph transmitted from arm to arm. On the whole, *i.e.*, after a long time, humanized lymph gives better results both in man and beast; whence it follows that animal lymph from old stocks gives less success than retrovaccine of the first generation. 9. Carefully generated, and in well-ventilated and regulated stalls, variola-vaccine is the most energetic of all, not only when taken direct from the calf, but especially in its humanized form. Consequently if we would obtain the most powerfully protective lymph we should, when occasion offers, from time to time, reproduce a stock of variola-vaccine.

Charcot's Joint Disease.—At a recent meeting of the Pathological Society (London *Lancet*, November 24, 1883), Dr. Hale White showed a pelvis taken from a subject which was brought into the Guy's dissecting-room last winter, and which he thought was an example of Charcot's disease. The bones were extremely thin and light, the spaces in the cancellous tissue being unusually large. This change made the bones so light that the whole pelvis weighed only seven ounces. The acetabula were much altered, the walls being as thin as paper in many parts. Owing to this tenuity of the bone, the heads of the femur had pressed the bottom of the acetabula into the pelvis, thus forming two very prominent bones in its interior, and making the transverse diameter of the brim three inches and a quarter. All articular cartilage had disappeared. This deepening of the cavity made its margins very prominent, so that the anterior superior spine quite overhung the acetabulum on the right side; at the back part the deepening was so extreme that the thick portion of the bone between the acetabula and posterior surface of the ischium was almost worn through. On both sides, especially the right, it was seen that the deepened cavity was divided into two parts by a vertical ridge placed opposite the most superior part of the ischial tuberosity; the anterior of these two parts was for the lesser trochanter to play in, as the absorption of the neck of the femur was so great that the lesser trochanter was brought up to the margin of the obturator foramen. The chief points about the specimen were the great atrophy of bone without the formation of any new bone, thus corresponding exactly to Professor Charcot's description of "considerable atrophy without the production of 'stalactites.'"

Elephantiasis Arabum Cured by Ligature of the Femoral Artery.—In view of the fact that the successful operations, both in this country and in Europe, for the cure of this most obstinate disease of the lower extremity, by ligation of the femoral artery, are quite few, and because of the apparent propriety of resorting to this last method before amputation becomes an imperious necessity to save the life of the patient, the successful case operated upon by Dr. G. C. E. Weber, and reported in the January number of *The American Journal of the Medical Sciences*, has considerable interest. Thirty days after the operation the limb had diminished in circumference nearly one-half, and at the end of six months the patient reported that he suffered no inconvenience whatever from his limb, save that upon unusual exertion a slight œdematous swelling would supervene.

Infarctions and Embolism of Various Organs.—Professor D. J. Hamilton concludes from a paper on the above subject: 1. That infarctions of the spleen and kidneys are due to the blood-supply being cut off from the part, and the most common source of this is embolic plugging of the respective arteries. 2. They are not usually accompanied by hemorrhage, unless in the zone of inflammation which surrounds them, although congestion and punctiform extravasation are possibilities in the early stages. 3. They are veritable necroses, the necrotic changes within them resembling those which follow the total abstraction of the blood-supply in other parts of the body. 4. They are in course of time absorbed and the formation of a depressed cicatrix follows. 5. Embolism of the arteries of the brain is accompanied by a similar necrosis, but, as the arteries of the encephalon are terminal only in certain regions, the necrosis of the part supplied by an occluded artery is never so widespread as in the case of the spleen and kidney. Hemorrhages may occur here owing to the attempt to nourish the part by collateral channels. 6. The hemorrhagic infarction of the lung is simply an apoplexy due to various causes, but by far the most common is rupture of capillary vessels unduly distended by regurgitant pressure from valvular disease of the heart. Its wedge shape is caused by the shape of the bronchus and air-vesicles in which the effused blood is contained, and not by the distribution of a terminal branch of the pulmonary artery. The lesion usually has nothing to do with pulmonary artery embolism, but a hemorrhage from any cause, if situated at the periphery of the lung, will have the usual characters of a hemorrhagic infarction. 7. The blood in these pulmonary infarctions is usually absorbed, and no trace of their former existence remains.—*Liverpool Medico-Chirurgical Journal*, July, 1883.

Physiology at Oxford.—A decree has been passed, appropriating $50,000 to establish a physiological laboratory at Oxford. Dr. Burdon-Sanderson is Professor.

THE MEDICAL RECORD:

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THE THERAPEUTIC VALUE OF HYPNOTISM.

IT is related of the late Dr. Beard that some one going into his clinic room at the Demilt Dispensary found him making extraordinary motions and gesticulations and using such incoherent language that for a moment it was thought he was insane. It was explained, however, that he was only giving what the patient thought was electricity, and the hypothetical fluid was acting remarkably well. For some time Dr. Beard treated numerous cases of paralysis, rheumatic, neuralgic, and hysterical troubles by these expectant and hypnotic methods. It was a kind of scientific faith-cure.

When mesmerism, having been introduced into England, was scientifically studied by Braid, that observer claimed for it wonderful therapeutic effects. Many of his cases, however, were reported in an uncritical manner, and the claims which he advanced were altogether too large. We believe that even before this time attempts were made to treat all kinds of diseases with "mesmerism" or "Braidism," and separate wards in hospitals were even assigned for this specific purpose. It had a therapeutic run very much like that of the Perkins' tractors years before.

Since the Germans took up the subject of hypnotism, four years ago, a few careful experiments have been made to test its therapeutic efficiency. Berger, in 1880, reported some cases of hysterical contracture, of hystero-epilepsy, and of hysterical mania, relieved by putting the patients into hypnotic sleep.

Dr. Creutzfeldt, assistant to Professor Preyer, reports some cases (Preyer, "Der Hypnotism," Berlin, 1882) of neuralgia relieved by hypnosis. Dr. L. E. Fischer reported similar cases in 1883, and Rieger, of Jena, very recently reports cases of spasmodic troubles and of hysterical mania relieved by the same process.

In the *Berliner Klinischer Wochenschrift* for January 21st, Dr. A. Wiebe, of Freiburg, reports four cases in the clinic of Professor Baümler, where he had applied mesmeric passes for the relief of various troubles. Two of the cases were hysterical patients suffering from clonic spasms of a violent and persistent character. The first was cured, the second relieved. The third was a case of functional hemianalgesia and hemianæsthesia, occurring in an apparently healthy girl. This case was also cured. The fourth case was one of trigeminal and brachial neuralgia, which had been first treated with counter-irritants, electricity, and various internal remedies. As these did no good, hypnosis was tried, and after a single hypnotic sleep the pains disappeared.

Wiebe refers to two other cases of hysterical vomiting, in both of which hypnosis failed. The method employed was to put the patients into a hypnotic sleep and allow them to remain until they came out of it spontaneously. This process was repeated, if necessary, daily for several days.

There is good reason to believe that, in certain forms of hysteria, and in neuralgia and insomnia, artificial hypnosis may have some therapeutical value.

It must be strongly insisted, however, that the procedure is not entirely devoid of danger to the patient, especially if it be kept up for some time. Finkelnburg reports the case of a young girl who had been once mesmerized by Hansen, and who came for treatment because she had, since that time, been constantly troubled with spontaneous hypnosis. One of Wiebe's cases, after the hypnosis, suffered for twenty-four hours from slight mental disturbance. Therefore, although the great majority of persons who are hypnotized suffer no bad results, the possibility of an unfavorable effect should not be forgotten. Above all, we would insist, as we already have done, upon the danger to public health, of the travelling mesmerists and of indiscriminate mesmerizing by the laity.

Besides the special effects of a direct and profound hypnosis, the action of the state of expectancy upon bodily functions belongs to the category of mesmeric phenomena. The faith-cures, and the miracle-working relics all produce results which should be classed among the therapeutic effects of hypnosis.

CHEMICAL DISEASES OF THE BRAIN AND SPINAL CORD.

SUCH is the title of a paper recently published by Dr. Thudichum. It need scarcely be said that the *chemical* diseases referred to are conditioned by the chemical constitution of these organs. In other words, given the chemical constitution of an organ we can deduce the pathological changes which must necessarily take place in it under certain conditions, more especially after the ingestion of drugs having a chemical affinity for the immediate principles of the organs; still further, knowing the chemical changes which must result in these cases, our treatment must be based upon a knowledge of the chemical substance as having a stronger affinity for the original offending cause than it has for the proximate principles of the organ.

As examples of these chemical diseases Dr. Thudichum instances locomotor ataxia, chronic alcoholism, lead and arsenic poisoning, etc. Locomotor ataxia, from a pathological standpoint, is an affection of the white substance of the cord, consisting essentially of the gradual destruction of nerve-fibres; this is accompanied by the formation of microscopic bodies having a reaction with iodine analogous to that of lignin, and not starch. Hence the name of these bodies, *amyloid*, is incorrect, as is the title of the change with which they are associated, viz., *amyloid degeneration*. The same error, says Thudichum, has been propagated regarding the so-called amyloid degeneration of the liver, spleen, etc. The iodine reaction of this latter substance is mahogany brown, a color not diagnos-

tic of any chemical principle with which we are acquainted. Another error into which physiological chemists have fallen is that of calling the so-called amyloid matter an "albuminous" matter, an error dating from the results of Prof. Kekulé's analysis of an amyloid liver treated by extraction with caustic alkali and subsequent precipitation by an acid. Naturally and necessarily, continues Thudichum, the *precipitate* had the composition of albuminous matter. True amyloid matter, however, is not precipitated by caustic alkali, nor does it contain nitrogen, and it is very probable that it is nearly related to, if not identical with cellulose. Certainly no similarity exists between it and the product of parenchymatous changes of the various organs which have been called amyloid matter.

It would be interesting to notice Dr. Thudichum's remarks concerning the cerebrosides or cerebral amylosides in their relation to *cerebrose diabetes*, a kind of acute glycosuria, but space does not permit. We pass, therefore, to a consideration of the phosphorized and nitrogenized principles of the brain. These principles, by their faculty of assuming and maintaining the colloid state, may be said to build up the nerve-fibres and the accumulation of nerve-fibres known as nerve-centres, which enable the brain to maintain its accurate distribution in the cranial cavity. Not only is Thudichum willing to admit the truth of Moleschott's aphorism, "no thought without phosphorus," but he thinks it highly probable that phosphorus, the ingredient of the brain present in smallest quantity, may be the most indispensable. The phosphorized substances are present in all nerve-matter, particularly in the gray substance; and are found in every centre of life-action. Bearing this in mind, and considering that, in the water-swelled colloid state, these substances combine with almost all chemical reagents with which they come in contact, provided these reagents are in relative excess, and that the combinations are broken up by a simple process of dialysis, we have a key to the *raison d'être* of a great deal of brain disease—probably also to diseases not referred to the brain.

For the present purposes, says Thudichum, we may lay aside our knowledge of the anatomy of the brain, and consider it a mere lump of matter, endowed with chemical properties maintained by its own life—or as a colloid septum with arterial blood on one side and venous blood and cerebro-spinal fluid on the other. If now, the blood carries a lead-salt to the brain or nerve, a combination is immediately formed between it and the cephalin or myelin; the combination with myelin being very stable, that with cephalin quite unstable. Other proximate principles, such as lecithin, apomyelin, and anilin do not combine with the lead-salts. The reason is apparent. Cephalin and myelin have acid characteristics; myelin, indeed, behaves as a dibasic acid, while in lecithin, apomyelin, and anilin the alkaloidal character prevails, and these bodies combine more readily with alkaloidal reagents, as cadmium chloride, platinum chloride, etc. Recognizing lead-poisoning, therefore, as nerve-poisoning (from the formation of lead salts with cephalin and myelin), our therapeutics must be directed toward breaking up these combinations by the administration of an agent which will itself be broken up by contact with the lead and form another lead-salt. In seeking for this agent we find that we have been anticipated. Iodide of potassium has long been recognized as an efficient agent in chronic lead-poisoning. It is known, too, that it will act more readily when large quantities of water are administered with it. From a chemical point of view it will be seen that a better antidote to lead-poisoning could scarcely be given than iodide of potassium and large quantities of water; for iodide of potassium being comparatively unstable, the contact of a solution of it with a solution of a lead-salt, immediately causes the formation of iodide of lead, thus setting free the potassium. The water administered now comes in for its share of the work. The vessels are deluged with a solution of potash, a highly diffusible liquid, and a stimulant of liquid secretion. The iodide of lead is soluble in the potash solution, and fresh quantities of potassium iodide being constantly added to break up the new combinations between the lead solution and the cephalin and myelin, the system is gradually rid of the offending substance. We have thus a *rational* basis for the administration of potassium iodide in lead-poisoning.

A very remarkable combining power exists between almost all the specific nerve-principles and alcohol. We find such a state of combination of alcohol and the phosphorized principles and cerebrosides in chronic alcoholism. It was shown by Percy, in 1839, that in alcoholic poisoning a large quantity of alcohol is found in the brain-substance, and more recently that nerve-substance absorbs it more readily and to a greater extent than does any other tissue of the body. The alcohol in the tissues being removable by dissociation or washing out by means of large quantities of water introduced into the blood, we need go no further for a chemical agent to effect this. But water will not cure such pathological changes as are cirrhotic, and we know that alcohol tends especially to cause cirrhotic conditions. Nor do we know of any agent which will cure them. It is seldom that the victims of chronic alcoholic poisoning can take large quantities of water. Their digestive organs have to be toned up to it by beef-tea, coffee, and easily digested and stimulating food. In acute alcoholic poisoning it is suggested that we abstract blood from a vein, and inject saline solutions containing some form of ammonia. For of all therapeutic means which we have yet administered to combat the effects of a "drunk," the ammonia compounds, especially the aromatic spirit, stand first in point of value.

MEDICAL EDUCATION IN CANADA.

THE medical schools in the Dominion of Canada compare favorably with those in other countries. The cities are smaller, and in this respect may not afford as good a field for practical teaching as is to be found in the larger centres; yet their material, as far as it goes, is very thoroughly used. It does not follow that because a city is large the advantages in practical work must be greater than in a smaller one.

There is now, and for some time past, a distinct tendency toward the practical in medical teaching. While didactic lectures are still given, and perhaps with greater care and zeal than ever, there is added that other great factor in medical education—observation. The various schools vie with each other in the efficiency of the prac-

tical department of the work. The anatomy is being taught very much by constant demonstrations, the microscope is placed in the hands of every student, and the test-tube is as familiar as the scalpel. This change has been brought about mainly by the changes in the course of study and the mode of examinations. The qualifying bodies now require that a fair percentage of the lectures must be practical. Whenever the dissected subject was used to examine candidates upon in the various years, students found it to their best interest to spend much of their time in the dissecting-room; and, instead of avoiding this part of the work, there was a run for material and practical teaching.

When the bedside test of the student was inserted as part of the examination, clinics became a great necessity; and so more of the school men began giving this department a larger share of their time and attention. No matter how anxious the teachers may be to impart instruction, or students to acquire it, the plan of Canadian hospitals can hardly be regarded as ideal in this respect. The advances which have been made in medical education necessitate better and more efficiently equipped schools; but there is not so much hope for larger and better arranged hospitals. These latter are intended for the sick, and so long as they meet public wants in this respect, no great change need be looked for. The material at the command of nearly all the medical schools is quite up to their requirements, and is very thoroughly used, notwithstanding many obstacles.

The entrance examination, fixed by the different licensing, or degree-granting bodies, is fairly high. It compares well with that found in Great Britain. This part of the course is very compulsory; for none can enter upon their studies and obtain a qualification in medicine without it. This preliminary examination being over, the course consists in four winter sessions. The examinations differ in different universities and licensing bodies. In some the work is divided into a primary and final group of studies, while in others there is an annual examination at the close of each session.

From a somewhat extended acquaintanceship with the state of medical education in the United States and in Great Britain, we cannot but think that Canada compares very favorably with both. It must be admitted that such old and large centres as Edinburgh, London, New York, and Philadelphia would have advantages peculiarly their own. Yet when we look at the advantages and disadvantages to medical education in Canada, at the careful manner in which both theoretical and practical teaching is given, at the high standard fixed by the different curricula, it must be admitted that these schools are turning out a very efficient class of practitioners.

If there be any serious error in the Canadian system of medical education, it is rather one of excess than one of defect. Several of the branches of study might, perhaps, be dropped out of the course altogether; or at least less attention paid to them. Such subjects as botany, zoölogy, and chemistry cannot be regarded of such prime importance as physiology and anatomy, and yet at present they receive a very great deal of attention. Pathology lately has been assuming its true position by receiving something like the attention it deserves.

THE PREACHER AND THE QUACK.

He who sups with the devil generally finds it convenient to use a very long spoon and keep at a safe distance. It is also quiet necessary, in order to enjoy the meal, that he have the Satanic faculty of blowing hot and cold in the same breath. When these conditions are fulfilled, conscience can be reconciled to the emergencies of rapidly changing relations, and the evil and good be seemingly assimilated with each other in a consistent whole.

Our religious contemporaries somehow or other always make a bad showing in their attempts to trim to the temptations of the hour. They can apparently resist the devil in every other shape save when he appears in their advertising columns. The *Watchman* cries "What of the night?" in one column, and proclaims a cure for gonorrhœa in another. When "the morning cometh," the reading of "Paradise Lost" is next in order. The *Evangelist* descends to earth to cure cancer, and the *Christian Intelligencer*, the avowed advocate of the pure and the good, stands upon the ramparts of Christendom holding the Bible in one hand, a kidney cure in the other, and warning all to flee from the wrath to come. In a recent issue of this model Christian intelligence disseminator, and spliced between columns advertising Paul's departure from Corinth, lessons for to-day, and the influence of Christian wives, on the one hand; and pile cures, consumption arresters, and blood-purifiers on the other, is an account of a prophecy which, in substance, declares that when Mars, Neptune, Jupiter, and Saturn dance around the sun, that the moon will eventually fulfil its ultimate destiny, and a terrible atmospheric upset will eventuate. As a consequence, much sickness will prevail, and death and desolation will culminate in a grand Black Friday for the unfittest. "But," soberly says the *Intelligencer*, "we are told for our comfort that the strong and pure-blooded need have little to fear in these calamities," and that it is only necessary to keep the liver and kidney in good condition by a sure-cure kidney-remedy. We do not mean to say that this is not paid for, so much per line; but the good editor has not spoon long enough to appear at his ease when at supper. Under the lessons of the day we learn, that "those who have heard the gospel have themselves to blame if they are not saved," and in the next column the devil mounts the pulpit and tells the congregation how it is done. Again, the lesson in the previous column significantly says: "Laborers for Christ need our hearty sympathy," and we presume, therefore, that they get it. And "the greatest of these is charity," in helping along the benefactor of his kind. It is sweet also to learn, in glancing from the perusal of the moon dance and the medicine bottle, that "friendships founded on common love for Christ are strong and tender." Therefore we do not think it likely that the man with the bottle and the man with the Bible are likely to fall out.

Medical Teachers in France and Germany.—There are in the medical faculty at Leipzic and Berlin 134 professors, while in France there are only 134 for all the schools of medicine. Germany spends over $3,000,000 annually on its professors, while France spends one million less.

THE POSSIBILITY OF PULMONARY COLLAPSE AFTER AN INFANT HAS BREATHED.

IT is quite commonly supposed that a new-born child has not breathed if the lungs, when placed in water, will sink. Yet it may happen that the lungs of a child which has not only breathed, but cried, may after the death of the infant be found collapsed and so empty of air as to sink under water. This fact was noticed as much as two centuries ago by Zeller, and since his time numerous confirmatory observations have been recorded. But though the fact is undoubted, the explanation of the manner in which the secondary collapse occurs is not easy. Maschka is of the opinion that cries and other sounds can be produced by a small quantity of air in the trachea and larger bronchi, without any actual entrance of air into the lungs. Another view is that of Thomas, who has suggested that the inspiratory efforts in a weakly child may become so feeble after a while that more air is expelled than is inhaled with each respiratory act, and soon the elasticity of the lungs drives out the residual air, whereupon the lungs return to their pre-natal condition. Maschka denies the possibility of such an occurrence, since no amount of pressure can squeeze the air from the lungs when it has once entered. Schroeder, however, agrees with Thomas, and answers Maschka's objection by the supposition that, in the case of pressure upon the lungs, the bronchi are compressed and the air prevented from escaping.

The latest contribution to this somewhat puzzling subject is that of Dr. Ungar, of Bonn (*Centralblatt für Gynäkologie*, December 8, 1883). He seeks for an explanation of the airless condition of the lungs in children who have once breathed in a study of pathological atelectasis. The theory of Bartels, that in this disease the air of the compressed portion of lung is absorbed from the alveoli by the blood of the capillaries, has been confirmed experimentally by Lichtheim. But in the case of acquired atelectasis it is only a portion of the lung that is collapsed and not the whole of both lungs, and it might be questioned how far this process could go before it would be terminated by resistance of the thoracic walls or by an arrest of the blood circulation. These objections were, however, anticipated by Ungar. He found, by actual experiment on new-born animals, that the chest walls readily followed the collapsing lungs, being forced to do so by atmospheric pressure. Regarding the second point, he instances the power of resistance to asphyxiating influences possessed by the new-born child, and relates a number of cases in which the heart continued to beat for a considerable time, even several hours, after the cessation of respiration. The process of the return of the lungs to the fœtal state is a very gradual one. As the respiratory movements little by little lose intensity and force, more and more of the pulmonary lobules become deprived of air, until, at the time when respiration has entirely ceased, but a very small portion of expanded lung remains. The blood circulation continues, however, for some time, and the air still remaining in the lungs is absorbed. The author succeeded in obtaining nearly complete atelectasis in young oxygen-breathing animals by causing a cessation of respiration by curare. When the conditions of absorption were less favorable, as in animals breathing ordinary atmospheric air, the collapse of the lungs was less marked. When the curare poisoning was combined with pressure upon the chest and abdomen, so applied as to aid in the expulsion of air and to restrain the inspiratory movements, the most complete atelectasis was produced.

Ungar's theory of the production of this condition is plausible and seems reasonable enough. But the important fact to be remembered is that this return of the lungs to the fœtal state may occur. Hence it cannot be said with certainty, when the lungs of a new-born infant are found void of air, that the child has never breathed. At most it can be claimed that there is no evidence of its having breathed. Cases have arisen, where it has been of the greatest importance to determine this very point, and if it should be decided in the negative upon the evidence of the collapsed lungs, injustice might readily be done. Another practical point to be remembered is that the presence of but little air in the pulmonary vesicles is of itself no positive proof that the respiratory efforts were weak or of very short duration.

THE DRUGGISTS' PROTECTIVE UNION.

THE druggists of this city and vicinity have united to form a protective union. The object of this is to keep up the prices, certain adventurous parties having ventured to sell drugs at a less profit than one hundred and fifty per cent. Druggists claim that their individual receipts are small, therefore they must make a large profit. It is only fair, also, to allow a large part of the so-called profit to represent the skilled labor employed.

Notwithstanding all this, the druggists' charges in this city are beyond reason, and the "protective union" is simply a sign that the public is beginning to appreciate the fact. The drug trade is overcrowded, and the excessive competition must lead to cutting. It is impossible for any "unions" to avoid this. The organization of druggists, therefore, in order to keep up the prices need not be particularly condemned, as it will surely prove futile.

ATTENUATING VIRUS BY DILUTION.

PASTEUR attenuates virus by exposure to the influence of oxygen. Toussaint and Chauveau attenuate anthrax virus by subjecting it for a few minutes to a temperature just below what is necessary to destroy it. Thus, in order to get a weak virus they heat it to 50° C. for fifteen minutes.

Both the above methods, however, require a great deal of skill, and in each case the virus may lose its activity very soon. Dr. D. E. Salmon has developed what he states is a new method of attenuation, and one which has been very successful with chicken cholera. "It consists essentially in inoculating with *diluted* virus; but, of course, to produce a definite result, the virus to be diluted must be of a standard strength. When sufficiently diluted, the general disease is not produced, but simply a slight local irritation characterized by distention of the blood-vessels and a scarcely visible swelling. This remains for about three weeks, without affecting the general health in the least, and, when it disappears, the bird may be inoculated with the strongest virus and resist it in the most perfect manner."

This method of attenuating virus can, however, hardly be considered original.

In the *Archives Générales de Médecine*, a year ago, Dr. Leblanc gave an account of the experiments of Professor Peuch, of Toulouse, with the virus of ovine variola (La Clavelée). This he inoculated in various dilutions. The protective influence, however, was not found to be great, and we very much doubt whether by a simple process of dilution a trustworthy protective virus can be obtained.

News of the Week.

MEDICAL PARIS.—At the meeting of the Académie de Médecine, February 12th, M. Constantine Paul exhibited a *new form of surface thermometer*. The bulb of the thermometer is placed at the bottom of a hollow soft-rubber cone, which is connected by a tube to a rubber exhaust-bag. The cone is applied to the skin and the air exhausted on the principle of a dry cup. The instrument can be applied to any of the soft parts except where there is hair. M. Féréol related the history of a patient who had suffered from *pulsatile empyema*, and who had been cured by Estlander's operation. M. Bouchard gave an account of an experimental study of the effect of the *hypodermic injection of chloroform and chloroform albuminuria*. The Society then discussed the subject of the law regulating the commitment of the insane.

DR. MENDEZ ALVARO, of Madrid, Spain, died on December 19, 1883. He was founder of the Spanish Society of Hygiene, President of the Royal Academy of Medicine, and director of the journal *El Siglo Medico*. He was a prolific writer and translator, and was author of a manual of auscultation.

MEDICINE IN FICTION.—M. Emil Zola in order to enlarge the sphere of his lascivious realism has introduced medical pictures into his later novels. He leads off with a description of an epileptic fit and delirium tremens. In his "Pot-Bouille," he gives a description of an accouchement, in which a poor girl delivers herself of an infant without medical assistance. In "La Joie de Vivre," he goes further and describes a lying-in scene where there is a cross-birth and a shoulder presentation. The medical attendant has never seen such a case before, and is much disturbed. He, however, performs version and safely delivers the child.

MEDICAL VIENNA.—At the meeting of the Society of Physicians of Vienna, February 1st, Professor Kundrat exhibited post-mortem specimens showing a rupture of the left auricle. The patient, a powerful man, was shot in the left side, the bullet lodging in the sixth rib. Death ensued in a few days. A rupture was found in the left auricle, due to the violent concussion and shock of the bullet. Kundrat also showed the specimens in the case of a man, aged twenty-eight, who had suffered from right-sided pleurisy, for which he had twice been tapped and three or four pints of sero-sanguinolent fluid removed. Upon his death, five and one-half weeks later, the right pleural cavity was found filled with a lympho-sarcomatous growth. Dr. Zillner showed several preparations illustrating heart injuries. Dr. Englisch read a paper upon "Albuminuria in Incarcerated Hernia." He had found that in cases of incarcerated hernia albumen was found in the urine, and that the amount increased with the duration of the incarceration. The age of the patient and of the hernia, as well as its contents, made no difference in the amount of urine. Professor Nothnagel thought that the albuminuria was due to the diminution in arterial pressure—not to any change in anatomical relations.

THE SIMS MEMORIAL FUND.—The Kings County (N. Y.) Medical Society adopted a resolution at its February meeting, appointing a committee consisting of Drs. Alex. J. C. Skene, Samuel G. Armor, and Paul H. Kretzschmar, to collect from members for the Sims Memorial Fund. The circular contains the original appeal of the General Committee, and encloses a suitable blank for the name of the subscriber. This is an excellent idea, and other county societies would do well to imitate this laudable example. There is no doubt that the Kings County Society will show a proper record.

THE ALBANY MEDICAL COLLEGE held its commencement exercises at Music Hall, on Wednesday evening, March 5th.

DR. EDWARD S. PECK, of this city, has just given a course of lectures on the anatomical and clinical relations of the eye and ear to the teeth, at the New York College of Dentistry, Second Avenue and Twenty-third Street. The present class numbers about one hundred and twenty-five students, of whom nearly sixty will present themselves for graduation at the coming commencement.

MEDICAL BILLS IN CONGRESS.—The following medical bills have been recently introduced in Congress:

House Resolution 71. That it shall be a misdemeanor, punishable by a fine of $500 and dismissal from office, for any Government, civil, or military officer to make discrimination in favor or against any school of medical practice, or its diplomas or graduated members, in the examination and appointment of candidates to medical service in any of the departments of the Government. That all such examinations shall be open, and detailed records of said examinations shall be placed on file in the Congressional Library, subject to inspection and use of members of Congress.

H. R. 1,807. To prevent the use of U. S. mails to advertise noxious and dangerous medicines, foods, and compounds. It provides that after six months from approval of the Act no advertisement of any kind or nature, or advertising device of any medical preparation, compound, or prescription, or any punch, bitters, cordial, or similar compound or preparation, to be used as medicine, or mixed with food, liquor, wine, or other substance, shall be placed in or carried by the mails, until exact formula with sample be placed in the Patent Office, and a certificate is issued by said Patent Office, that the same is not noxious or dangerous to health. A fee of $20 is charged for the certificate, and a penalty of from $100 to $1,000, or the penitentiary for six to twelve months, for violation of the law is imposed. Experts are to be employed by the Patent Office to make the proper examination.

S. 1,044. To establish a university of medicine at the

Capital, for the advancement of science and the discovery of improved methods of treatment and cure of disease. It appropriates $1,000,000 as a perpetual endowment, and $100,000 for the erection of buildings and purchase of grounds. The professors' chairs shall be open to all schools of medicine, and all methods of treatment and cure of disease.

S. 1,223. That all appointments to medical service under the Government shall be made from graduates of legally chartered medical institutions, without discrimination for or against any school or theory of medical practice.

H. R. 1,791 forfeits the corporate powers of any association in the District of Columbia which shall withhold any privileges of membership from any person on account of such person being in the service of the United States. The object of this bill is directed against one of the rules of the Medical Association of the District of Columbia which prevents those members from voting who are in Government employ.

A resolution has been referred to the Committee on Agriculture with power to send for persons and papers, instructing said committee to inquire into and investigate the question of the adulteration of dairy products with oleomargarine, butterine, suine, etc. The resolution was placed on the calendar and ordered printed.

A SUBSTITUTE FOR THE NATIONAL BOARD OF HEALTH'S BILL now before Congress, "for the prevention of the introduction and spread of contagious infectious diseases," was handed to the Committee of Public Health at its last meeting. This substitute contemplates the forming of a United States Board of Health; gives the quarantine work to the Treasury Department and the investigation into sanitary matters to the Navy Department; the Board to consist of the Surgeons-General of the Army, Navy, and Marine Hospital Service.

THE THIRD INTERNATIONAL OTOLOGICAL CONGRESS will be held at Basle, Switzerland, September 1 to 4, 1884. Gentlemen wishing to read papers at the meeting are requested to communicate the subjects which they intend to treat by May 15, 1884. Besides papers and discussions it is proposed to exhibit instruments and preparations both macroscopical and microscopical. All communications concerning the Congress should be addressed to Monsieur le Docteur Burckhardt-Mérian, Bâle (Suisse).

THE COLLEGE OF MIDWIFERY OF NEW YORK still continues to send its advertising pamphlets to the profession, including an offer of "confidential" percentages to medical men. Accompanying these is the professional card of a gentleman who resigned some time since from the institution. And thus the so-called "woman's work" goes on. It has been heard from in several parts of the country of late. Dr. Sarah E. Post, of this city, writes that her name as a member of this faculty is published without authority, she never having accepted such an honor. Are there any more to be heard from? No institution started with better promises than did the College of Midwifery, and none has more utterly failed in its so-called ultimate aims. The profession looks upon it as utterly dead, and thinks that it is about time, with its originators, it should be buried. We are surprised to learn that a new bill to incorporate this institution is before the State legislature. The incorporators are all laymen, with one exception. It appears to be the intention of the bill to give this college extraordinary powers for licensing midwives, without allowing the medical profession to have any voice in the matter. The bill should not be allowed to pass under any consideration.

THE NEW YORK SKIN AND CANCER HOSPITAL.—The position made vacant by the resignation of Dr. Hunter has been filled by the appointment of Dr. J. E. Janvrin, with Dr. J. R. Goffe as his assistant.

THE SIXTH ANNUAL MEETING OF THE SANITARY COUNCIL OF THE MISSISSIPPI VALLEY will be held in the city of Memphis, Tenn., on Wednesday, March 19, 1884.

RISE IN THE PRICE OF QUININE.—It is reported that owing to the fire which destroyed the establishment of Powers & Weightman, together with large quantities of Peruvian bark, there will be a rise in the price of quinine amounting to about fifty cents.

SYPHILIS FROM CIGAR STUMPS.—The following letter appeared in a recent issue of the *Times*: "A prominent physician told me lately that, from the practice of cigar-makers wetting the wrapper with their saliva and biting the end of the cigar into shape, a spread of syphilitic disease was taking place; that he knew of several cases. Somewhat alarmed, I managed to visit a number of factories. Two-thirds of the cigar-makers, I found, daub the whole end of the cigar with their saliva. Thinking that Cuban workmen might not do it, I visited places where they were employed, and found that not only did they use their saliva to make the wrapper stick, but that most of them before wrapping bit the end of the cigar into shape with their teeth. As the physician informs me that many of the cigar-makers have sore mouths from disease, it is a dangerous as well as a beastly habit." We should like to hear from the prominent physician who knows of several cases. We believe that all medical literature furnishes only "several cases."

THE PHILADELPHIA CLINICAL SOCIETY has been organized in order to give women physicians an opportunity to become members of an active organization.

NEWS FROM THE GERMAN CHOLERA COMMISSION.—Incomplete reports are telegraphed to the effect that Dr. Koch and his co-workers, in India, have found a germ which they believe to be that of cholera. It is found only in cholera cases. It has been cultivated but not yet successfully inoculated in the lower animals.

OLEOMARGARINE AND BUTTERINE.—The Senate Committee on Public Health have been investigating the subject of adulterations in butter with interesting results. About a million and a half pounds of imitation butter is sent into New York annually, a large part of it coming from the West. Two-thirds of the ordinary butter of the grocer's is imitation. Butterine is made from lard and butter, colored with annotto, and subjected to certain processes of melting and cooling by which the ingredients are amalgamated. Oleomargarine, which is more notorious in the market than any other form of imitation butter, is made from beef-fat by various processes, the secret of each being carefully guarded as a trade receipt, although the general features of the rendering are well

known. These imitations, when carefully made, are harmless, but they ought to be made under official inspection.

THE TRANSMISSION BY MAN OF PHYSICAL INJURIES.—Doubtless many have wondered why, since in lower animals physical injuries are transmitted, it happens that the Jews continue to be born with fore-skins. Instances of inheritance of physical injuries are occasionally reported. Mr. Irving P. Bishop relates a case of this kind (*Science*, February 8th). A gentleman acquired a pronounced deformity of the foot by wearing a tight boot when seven years old. He has seven children, of whom two inherited the crooked toe.

THE BACILLUS OF RINDERPEST.—Dr. Metzdorf, of Breslau, has discovered and cultivated the bacillus of rinderpest.

A STUDIOUS PROFESSION.—Over eight hundred doctors in this city are studying German.

MEDICINE IN PATERSON, N. J.—A correspondent of the *Philadelphia Medical Times* writes rather gloomily concerning the literary and medical status of Paterson, N. J. "Perhaps no city of its size in the United States is so destitute of literature and reading as this one. There is no public library of any description worthy the name. The only attempt in that direction is a motley collection of old books—perhaps one hundred in all—open once a week in the evening, in the basement of one of the churches. The opportunities for mutual or individual improvement to physicians are most meagre. The County Medical Society, while having upon its rolls upward of forty names, cannot usually muster over half-a dozen members at a regular monthly meeting; and the details are uniformly uninteresting and unprofitable, consisting chiefly of routine business. All the sociability to speak of in the profession finds expression in an annual dinner at the leading hotel. The prevailing idea in the minds of most of the members appears to be business. This dominates all else. The facilities for the succor of the homeless sick and maimed consist of two general hospitals and one infirmary for diseases of the eye and ear. The former two have been in existence about ten years, the last about one year. The city has a very good Board of Health."

SHOCK AS A THERAPEUTIC AGENT.—The history of the chronic insane patient who was cured by a blow on his head is a familiar one. Traumatism certainly has relieved cerebral troubles in a few cases; it has produced opposite results in many others. In fact, injury of the head is a recognized cause of insanity, inebriety, and all the grave neuroses. Recently we have had illustrations of the effect of blows upon the head in relieving disturbances of the special senses. A man who had been quite deaf stumbled while entering a door and fell, striking his head upon the door sill. He received a bad bruise, but he was relieved of his deafness. A more notable case is that of Mr. Maybee, of Long Island, an old gentleman who had for several years suffered from spinal disease, and who had been blind for a year. He was beaten about the head by tramps, who killed his wife and daughter. He lost some blood and had a considerable scalp-wound. A few days later he began to recover his eyesight, and his vision improved until he could see tolerably well. The explanations offered have been that he had an optic neuritis, and the shock stimulated the atrophied nerve or modified its conductibility; or that he had a cataract, which was dislocated by the blows and violence that he received.

CONSERVATISM.—The following notice appears upon the bulletin board of one of the leading city medical colleges:

"Attention is called to the rule of this college which forbids the attendance of women at either didactic or clinical lectures in this institution."

GLANDERS has appeared among the horses of Chicago.

PERSONS MURDERED FOR DISSECTING PURPOSES.—It is claimed that two colored persons were murdered and their bodies sold to a medical college in Cincinnati. The parties are under arrest.

DECISION UPON AN ANATOMY ACT.—The law of Maryland makes it a criminal offence to take bodies from the ground after burial for dissecting purposes, unless these bodies are buried in Potter's field. Last spring, says the *Maryland Medical Journal*, three men were arrested for having in their possession bodies obtained from Bay View, and being tried before Judge Fowler, at Towsontown, were convicted. The counsel for the defence maintained that the Alms House burying ground was a Potter's field, and hence was excepted by law, but Judge Fowler did not entertain this opinion and the prisoners were declared to be guilty. This decision was appealed from, and after several trials the question was finally settled by Chief Judge Yellott on Friday last, who said that "any place where unclaimed paupers and strangers were buried was a Potter's field," and the prisoners were acquitted, after a confinement in jail of eleven months, in one case.

THE OHIO SANITARY ASSOCIATION, at its meeting in Columbus, February 14th, elected Dr. Wm. M. Beach, of London, O., president, and Dr. Harvey Reed, of Mansfield, secretary. After a successful and enthusiastic session, the new organization adjourned to meet at Columbus in February, 1885.

A BILL TO DEFINE THE TITLES OF MEDICAL OFFICERS IN THE ARMY. A bill has been introduced into the U. S. Senate (S. 1559), which aims to change certain titles. The six (medical) colonels are to be called "assistant surgeons-general," the senior officer being charged with the duties of chief medical purveyor. The lieutenant-colonels are to be styled "deputy surgeons-general."

THE TROUBLE IN THE ST. LOUIS COLLEGE OF PHYSICIANS AND SURGEONS, mention of which was made in *The Review* of January 19th, has culminated in the withdrawal of eight of the faculty. It will be remembered that these eight professors sent in their resignations some time ago, but still continued lecturing, and it was supposed they would do so until the end of the session. It appears, however, that new grievances were discovered, which resulted as above mentioned. The students who passed resolutions pledging themselves to leave the college with the seceding portion of the faculty have changed their minds, and concluded to remain in the college.—*The Medical Review.*

Reports of Societies.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, February 13, 1884.

GEORGE F. SHRADY, M.D., PRESIDENT, IN THE CHAIR.

(Continued from p. 248.)

DR. W. P. NORTHRUP presented a specimen of

IMPERFORATE ANUS

removed from the body of a male child ten days old, inmate of the New York Foundling Asylum. The child was admitted to the house December 27th, aged twelve hours, and was sent out to wet-nurse the same day. It was rather small and probably premature. It remained with its nurse two days, when it was returned. The nurse reported that it nursed well, but vomited soon after it finished nursing, and further, that the child's bowels had not moved during its stay with her. On examination it was noticed that the abdomen was tensely distended and tympanitic, the skin dusky and in places livid, the superficial veins distended and very prominent.

December 31st.—Child four days old. Examined by Dr. O'Dwyer in consultation with the House Physician, Dr. Blodgett. Anal ring normal. On pushing the little finger through the grasp of the sphincter a cul-de-sac was met just within the sphincter. By gentle pressure the finger was passed through this limiting membrane, when the finger came into a cavity bounded on the sides by a defined wall (the muscular portion of intestinal wall), above by a tense, fluctuating convex partition, which felt like the "bag of water" in a half dilated os uteri.

A sharp-pointed scissors was passed along the finger as a guide and a small opening made. This opening allowed the discharge of meconium. The opening was freely enlarged and a large quantity of meconium and gas discharged. From this time the child was bottle-fed. It gradually failed and died January 5, 1884.

On autopsy the intestine was found to be normal down to the rectum. Just above the internal sphincter the rectum ends in a cul-de-sac. This cul-de-sac is formed of mucous membrane only, the muscular portion of the gut continuing along in its normal course. So we have a cul-de-sac above the internal sphincter with its concavity up, another cul-de-sac just within the lower sphincter with its concavity down. Between these two is only loose connective tissue. It was into this cavity the finger of the operator first forced its way. The lower or external cul-de-sac is of muco-cutaneous tissue—no rectum tissue proper.

The wall of the rectum at its lowest portion is congested, but no harm has been done to any adjacent organs.

The remainder of the record of autopsy is not pertinent to the specimen and is therefore omitted here.

GENERAL INTERSTITIAL INFLAMMATION.

DR. A. JACOBI presented a series of specimens removed from the body of a child that died at Bellevue Hospital. They were accompanied by the following history, furnished by Dr. Jacob H. Frankenberg, Acting House Physician:

Emil L——, fourteen months old, admitted to Bellevue Hospital February 2, 1884. Previous history of the child unknown. On admission child seems well developed for its age; bones are firm and resisting; the anterior fontanelle has almost completely closed; child is somewhat anæmic; muscles rather flabby; child appears to be suffering pain, being very restless, uneasy, and feverish, and at times cries out without any provocation. The skin feels hot to the touch; temperature 102⅘° per rectum; pulse 140 per minute, regular but very feeble; respirations 42 per minute, hurried, shallow, and jerky.

Physical examination reveals rude breathing at the right apex, heard best in front; over the scapular and subscapular regions, on the same side, subcrepitant râles and small areas of rude breathing are heard. The cervical and bronchial glands on the right side are considerably enlarged. Deep fluctuation was made out on the right side of the neck.

February 3d.—Toward midnight yesterday the child's temperature sank to 99½° F.; its pulse became less rapid; the breathing became calmer; it was less irritable and feverish, and sank into a quiet sleep; it slept well all night and took its food nicely; it had three diarrhœal movements and had a slight cough.

February 5th.—Child's temperature varies a good deal; sometimes it is normal in the morning, sometimes in the evening, or it may rise at either time to 100° or 101° F. Pulse varies between 120 and 130 per minute and is rather feeble; the diarrhœa, which lasted during the first forty-eight hours after admission, has ceased. The child still coughs a little, otherwise it seems to be doing nicely; at times it utters a peculiar high-pitched shrill cry.

February 8th.—Child is continuing in the same manner as heretofore, eating and sleeping well; bowels move daily once or twice; it has occasional rises of temperature to 100° or 101° F., and at one time it rose to 103° F., but remained elevated only for six hours, responding quickly to the use of gr. iij. of ac. salicyl. repeated three times at intervals of one hour. It still coughs now and then with an occasional shrill cry. Child's respirations are no longer labored nor are they so rapid, 31 per minute. Pulse 130.

February 10th.—Child's temperature was normal all day yesterday, but toward evening the pulse became very rapid, mounting to 144 per minute. Its face and conjunctivæ became slightly icteric and its appearance somewhat drowsy, otherwise it was well; ate nicely during the night, and even this morning at nine o'clock it took all the food given to it, but appeared to be drowsy. The jaundice persisted in the same light form as yesterday. At about ten o'clock the child was inadvertently noticed by the nurse to become more restless. Its temperature was found to be 97½° F., but its pulse was very rapid and exceedingly feeble, numbering over 150 per minute. Soon afterward it developed œdema of the lungs and died at 12.30 P.M., notwithstanding the free use of stimulants, etc.

Autopsy.—The eyes and skin were of a slightly yellowish tinge. Neck: After removing the enlarged glands on the right side of neck an abscess was revealed which seemed to be entirely encapsulated; its outer wall was partly rough, being formed by a number of suppurating glands; the carotid sheath formed also a part of the outer wall; its inner wall was formed by the outer wall of the pharynx, œsophagus, larynx, and trachea; it extended from the base of the skull, immediately in front and to one side of the foramen magnum, to the pleura, being separated from the pleural cavity only by the parietal pleura. There seemed to be no opening leading from the abscess cavity elsewhere. The external fistulous opening could not be traced to the abscess cavity. The tracheal, bronchial, and mesenteric glands were all found enlarged, but none were found in a suppurating condition except the few above referred to.

The lungs: The left lung was tolerably normal; a small amount of hyperstasis and considerable emphysema at the apex. The upper lobe of the right lung was the seat of interstitial pneumonia. There was a good deal of new formation of interstitial tissue, and the air-cells were filled with the usual pneumonic products. The liver was enlarged, heavy, and showed a large number of little dots, part of which consisted of fat; most of the tissue, however, was a new interstitial growth. It was a cirrhotic and, in part, a fatty liver. Both of the kidneys were in a condition of interstitial nephritis, the left more

markedly than the right. The spleen seemed to have undergone the same interstitial change. There were quite a number of dark spots in the centre in which there had occurred hemorrhage. The wall of the lower portion of the small intestine was thickened; in a few places there were ulcerations. There was considerable swelling of Pyer's patches, a good deal of redness of the glandular and mucous tissue, and probably congestion of the submucous tissue. The colon and rectum were substantially normal. The brain was apparently normal. No gummata were found in any part of the body. The process seemed to be a general interstitial inflammation. It had been impossible to obtain any information with reference to specific disease, but probably the true explanation of the interstitial change throughout the different organs of the body must be on the ground of hereditary syphilis. Gummata, as a manifestation of syphilis, are not of so frequent occurrence in the viscera of infants as is general hyperplasia of tissue. There was no suspicion of tuberculosis.

On motion, the specimens were referred to the Committee on Microscopy.

Dr. J. Lewis Smith remarked that pharyngeal abscess is more common in New York among infants than is generally supposed. It is very frequently overlooked, and the cases are supposed to be those of chronic laryngitis or pharyngitis from some other cause.

CANCER OF THE ŒSOPHAGUS AND STOMACH.

Dr. Beverley Robinson presented a specimen, with the following history furnished by Dr. Wm. H. Sherman, Junior Assistant at St. Luke's Hospital. John D——, forty-two years of age, and a hostler, was admitted January 2, 1884. His family history was good. He had a venereal sore twenty-five years ago, and had been subject since to ulcerated sore throat. The patient had been suffering from a cough with profuse muco-purulent expectoration for the past six months. He had been accustomed to vomit frequently. He had considerable dyspnœa, and stated that he had lost some flesh.

Physical examination revealed ægophony and a metallic ring during cough over the eighth left intercostal space in the back; there was flatness on percussion, extending from two inches above the angle of the left scapula to the base of the left lung and into the axilla, where it reached the seventh intercostal space. Amphoric cough and breathing were heard over the left base posteriorly and in the left axilla. Thoracic vibrations were diminished over the lower part of the chest on the left side. Over the upper part of the left lung there were pleuritic and subcrepitant râles, and the respiration was feeble. On the right side respiration was feeble and, in certain areas, blowing in character.

On January 4th a puncture was made posteriorly in the ninth space on the left side and three ounces of a clear, straw-colored fluid withdrawn. The above sign still continued after the withdrawal of the fluid, and, in addition, some râles were present. A needle introduced in the eighth space over the seat of amphoric breathing gave a negative result. On January 5th the amphoric breathing could not be heard in the axilla. The patient complained *for the first time of some difficulty in deglutition*, stating that he found it necessary to wash all his food down with large amounts of water. January 7th tinkling was heard over the supposed cavity. January 18th patient had an attack of severe dyspnœa, lasting for about an hour. During the evening of the 20th the patient was again seized with attacks of severe dyspnœa, during one of which a tonic contraction of all his muscles was observed. Death occurred on the morning of the 21st. *Neither vomiting nor regurgitation of food* were observed while the patient was in the hospital.

Post-mortem examination.—There were about three ounces of fluid in each pleural cavity, and five ounces of reddish serum in the pericardial sac. The right lung was congested and œdematous, and the bronchi contained mucus and pus. The anterior portion of the lower lobe and the entire upper lobe of the left lung were well supplied with air and were moderately œdematous. The posterior part of the lower lobe of this lung was hepatized and mottled in color. At the lower end of the œsophagus there was a nodular growth, whitish in color on section, two inches in length and one-half an inch in thickness and about the same breadth, involving partly the stomach and partly the œsophagus. Above this there was a mass of similar composition involving the entire circumference of the œsophagus, excepting a small band about one-fourth of an inch in width, and which was firmly adherent to the aorta, and was in close proximity to the vessels and bronchial tubes as they entered the hilum of the left lung. This latter mass commenced one inch above the former and was about five inches in length. It was whitish in color and in places quite firm, elsewhere very brittle. The mesenteric glands were enlarged.

The microscopical examination, made by Dr. F. Ferguson, showed epithelial cells very abundant, arranged within alveoli limited by narrow fibrous walls. The epithelial cells were large, cuboidal in shape for the most part, and the fibrous stroma was scanty. The parts adjacent to the developing growth contained extensive areas of small round cells of inflammatory origin.

Remarks.—"The patient, whose history I have read, was an interesting one during life. My opinion when I first examined him was that he had an encysted or limited empyema on the left side, situated between the upper and lower lobes, and communicating with a large bronchus. I subsequently was of opinion that I had to do with a very large *pulmonary* cavity and a much-thickened pleura covering it. Personally, I had not believed in the existence of a *solid tumor*. My diagnoses were based upon the flatness, amphoric cough and breathing, profuse purulent expectoration, duration and general symptoms of the disease. I made two negative punctures over the seat of what I believed to be a purulent cavity.

"With the signs presented during the life of my patient, I still consider my *erroneous* diagnosis to be justified by the results of auscultation and percussion. After death the amphoric cough and breathing were possibly accounted for by the presence of a cavity in the tumor itself communicating with the œsophagus, or else by a relatively increased calibre of bronchus below the level of pressure by tumor. No orifice leading into a bronchus of any size was discovered. It seems evident, therefore, that it is not absolutely *essential* for the production of the type of breathing, viz., *amphoric*, which I have mentioned to have an intra- or extra-pulmonary cavity communicating with a bronchus.

"The mucous râles, heard more than once, must have taken place in the bronchial tubes. It is a singular fact that this patient complained only for the first time of difficult deglutition on January 5th, or two weeks before his death. He did not have a single attack of vomiting during the three weeks he was in the hospital. With such involvement of the œsophagus and stomach by the malignant growth as is here shown, this fact is certainly remarkable."

Dr. John A. Wyeth exhibited

AN INSTRUMENT FOR DIVIDING BONES IN EXSECTIONS,

a description of which will appear in a future number. The Society went into executive session.

The Dose of Nitro-Glycerine recommended by Dr. Roberts Bartholow in albuminuria is ♏j. of the one per cent. solution three times a day, or every three or four hours. It is to be used after the subsidence of the acute symptoms. The chloride of gold and sodium is given in the subacute and chronic stage in doses of gr. $\frac{1}{50}$ twice daily to gr. $\frac{1}{10}$.

NEW YORK ACADEMY OF MEDICINE.

SECTION IN OBSTETRICS, AND DISEASES OF WOMEN AND CHILDREN.

Stated Meeting, February 28, 1884.

ALEXANDER S. HUNTER, M.D., CHAIRMAN.

DIPHTHERITIC CROUP, ITS TREATMENT BY SOLVENT INHALATIONS AND TRACHEOTOMY.

DR. J. LEWIS SMITH read a paper on the above subject, in which he first directed attention to the etiology and the anatomical characters of the disease. In New York the percentage of cases in which the larynx has been involved has been large. Speaking of the exudation, Dr. Smith said that above the vocal cords it was intimately incorporated with the mucous membrane; while below the vocal cords it lies simply in contact with the mucous membrane. This fact had an important bearing on the question of tracheotomy.

Diphtheritic croup, when left to itself, almost never abates, but extends into the larynx and trachea, and produces distressing and dangerous symptoms.

Dr. Smith believes that there is a membranous croup which is a local disease, and does not partake of the nature of diphtheria, although its occurrence is rare, and physicians in rural regions may not see more than one or two cases during the course of a long practice.

With regard to treatment, inhalations in diphtheritic croup might give better results if the disease did not progress so rapidly. As a general rule, if no amelioration of symptoms occurred within four days, the case would terminate fatally. According to his experience and observation, about *one in eight* recover under treatment by inhalations.

With regard to tracheotomy, the author of the paper gave a series of statistics from which it appeared that from twelve to thirty-nine per cent. had been saved by the operation, and he believed that, under improved methods of operating, and at the present time, the disease evidently having changed its character within the last three or four years, it might be expected to save *one in three* by tracheotomy.

The solvent which he recommended was lime-water with a small quantity of caustic potassa; one part of liquor potassa to fifty of lime-water; and the lime-water should contain an excess of lime so as to be a trifle turbid.

The ordinary glass atomizers he regarded as inefficient; a metallic point which will carry a large column of spray should be used.

Dr. Smith thought that, when the cough increased in harshness, the hoarseness increased, and the voice grew feeble, the patient became restless, and the respiration labored, tracheotomy should be performed without delay. Emetics are not advisable as an adjuvant in the treatment; they will only hasten a fatal termination. If the case steadily progressed unfavorably, the physician should not wait until the patient is moribund before resorting to tracheotomy.

At the conclusion of his paper Dr. Smith read a letter from Dr. John A. Wyeth, who approved of performing tracheotomy without a tube.

DR. S. M. ROBERTS thought that tracheotomy was a simple operation, and that it should be performed as soon as the patient began to have labored respiration. The dangers in diphtheria were from blood-poisoning, membranous tracheitis and bronchitis, broncho-pneumonia and exhaustion. The condition of the patient with reference to these should in many cases influence the decision as to whether or not the operation should be performed. If blood-poisoning was already profound, if broncho-pneumonia had developed, etc., the operation would not save the life of the patient. Tracheotomy probably increased the liability to the development of broncho-pneumonia, and therefore, when he found high temperature with râles in the chest, he regarded the condition as one which contra-indicated the operation. He had seen five recoveries under treatment by packing the neck over the larynx with ice, after it was evident the vocal cords had been involved by the membrane.

DR. C. A. LEALE thought tracheotomy should be performed only as the last resort, and for the reason that he had seen several cases in which the operation was refused, and yet the patients recovered. There are cases, however, in which tracheotomy positively cures the patient. He regarded it not as a simple but as a difficult operation to perform, and also one dangerous to the operator.

DR. JOEL FOSTER referred to a case in which cure was effected, apparently, by inhalations of lime-water continued for *twelve* days.

DR. STICKLER urged the necessity of treating apparently trivial cases of sore throat with care, especially when diphtheria was prevailing.

DR. F. LANGE regarded tracheotomy as a symptomatic remedy. He did not believe that either the progress or the cause of the disease was influenced by the operation. He had operated in thirty-two cases, with eleven recoveries, but he believed that he did nothing more for his patients who recovered than merely to get them over a difficult point at the time the operation was performed. The danger from extension of the disease downward, he thought, had not been averted by tracheotomy. Nor, on the other hand, did he believe that local applications had done any good. The operation certainly added to the danger in the case.

If we could get along without the canula, it would be very good. He had tried to get along without it, but had abandoned the plan. He thought a good-fitting canula did no special harm—it should not fit closely—at least it gave safety.

He preferred to perform the operation above the isthmus, because at that point the trachea was more superficial than lower down, and prominent blood-vessels were avoided. He always made a large opening in the trachea, and never refused the operation so long as the changes in the lungs were certainly fatal. A moist air was favorable, but an atmosphere carrying any medicament, he thought, did not exert any specially beneficial influence on the diphtheritic process.

DR. SMITH, in closing the discussion for the evening, referred especially to the change in the character of the disease which had occurred within the last three or four years, and that tracheotomy performed now gives better results than it did formerly.

The further consideration of the subject was postponed until the stated meeting, March 27, 1884, when the discussion will be opened by Dr. John H. Ripley.

AN ANODYNE MIXTURE WITHOUT OPIUM.—Dr. A. P. Meylert, of this city, sends us a formula somewhat resembling that of chlorodyne, and writes: "It has given me no little anxiety to find a suitable anodyne for patients cured of the opium habit. In attacks of intestinal colic or neuralgia, to which they are subject, any preparation containing morphia is necessarily excluded, since it would at once bring back the old habit. The following formula is the result of various experiments, and has been used with good results in my cases. Perhaps its publication may lead others to relate their experience likewise:

℞. Chloroform	.100
Ether. sulphur. spts	.025
Tinct. cannabis	.175
Acid. hydrocyan. dil	.030
Hyosciamia	q. s.
Ol. menth. piperit	.003
Tinct. capsici	.003
Alcohol, 95 per cent	.350
Glycerine	ad. 1.000

Dose, 10–30 ♏."

Correspondence.

OUR LONDON LETTER.

(From our Special Correspondent.)

ALCOHOLIC POISONING — CHOLERA — DRS. BALFOUR— SEWAGE IN THE THAMES.

LONDON, February 16, 1884.

AT the meeting of the Medico-Chirurgical Society, on the 12th inst., an interesting paper by Dr. Broadbent on "Alcoholic Poisoning" was read. Several cases were referred to by Dr. Broadbent in which (alcohol having been taken in unusual excess) paralysis came on, increased rapidly, and terminated fatally. In one case seen by Dr. Broadbent, the patient (a dipsomaniac who had never had decided symptoms of delirium tremens) had been failing in mental power for some months, and the arms had been weak for a fortnight, but there had been no marked loss of power in the hands till within a few days of the date when the patient was first seen by Dr. B. The paralysis was then chiefly manifested in the extensors of the forearms, causing wrist-drop. The flexors, though, were weak. The trunk muscles were also feeble, and the patient could not stand alone, though he could move his legs freely in bed. Knee-jerk lost; sole reflex marked; sensation unimpared; sphincters not affected. The hands were pale, purple, and puffy, and the feet swelled when hanging down. The paralysis rapidly increased in extent and severity. The respiratory muscles became implicated and death from asphyxia occurred eight days after the consultation with Dr. B. This patient had become addicted to alcohol in early manhood, and had gradually become inert and sedentary in his habits, spending most of his time in bed, in reading, and in drinking port. Several other cases were referred to, and in all the patients were sedentary in their mode of life, and the majority of them were females. Dr. Broadbent considered that the determining cause of the disease attacking the spinal cord was the want of exercise. The disease most resembled acute ascending spinal paralysis, differing from it chiefly in the order in which the different parts of the cord were attacked. The double wrist-drop at an early period was highly characteristic.

At the same meeting some discussion took place on cholera and its relation to micro-organisms. The discussion was occasioned by the fact of Professor Marshall, the president, having received a series of microscopical preparations from Dr. Straus of Paris. Eight were sections of small intestine and two were preparations of rice-water stools of cholera patients. The latter contained numberless organisms of every kind, but none very characteristic. A committee is to be appointed to examine and report on the specimens. In the discussion which followed, most of the speakers declared themselves non-believers in the contagiousness of cholera. The opposite side, in fact, found no defender.

I have to chronicle the death of Dr. Balfour, lately Professor of Botany in the University of Edinburgh. His son, Dr. Bayley Balfour, has just been appointed professor of the same subject in the University of Oxford. The University of Edinburgh has been noteworthy in furnishing professors for other universities and colleges. As a set-off it may be observed that one of its most distinguished professors at the present time received his medical education in one of the London hospitals and graduated at the London University.

The first report of the Royal Commission on the Metropolitan Sewage Discharge has just appeared and is exciting considerable interest. In it the commissioners practically acknowledge, what indeed has long been patent to everybody viz.: that the discharge into the Thames, even so low down the river as the present outfalls, of such a bulk of raw unfiltered sewage as that proceeding from the area included within the Metropolitan sewerage system is a real nuisance. It is obviously one likely to increase year by year. It is, however, easier to find fault with the present system than to remedy it, considering that the sewage of a population numbering nearly five millions is to be dealt with, and the commissioners reserve their remedial measures for a future report. The commissioners might turn their attention with advantage to the question of preventing pollution of the river above the points at which the water companies have their intake. I believe I am correct in stating that a good deal of river-pollution still goes on some miles up the Thames from houses and villages on its banks.

A SUGGESTION TO REMEDY DISPENSARY ABUSES.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR: The discussion of the subject of free medical aid to the poor at dispensaries seems now in order, and the evil of giving too indiscriminately calls loudly for a remedy.

The free discussion through the medium of the medical journals of other evils relating to our profession has, in many cases, resulted so favorably as to lead to the hope that in the near future this misplaced charity may be remedied, and to this end I would offer the following suggestion: That a physician be appointed to each dispensary and institution where the poor are treated gratis, whose duty would be to investigate the case of every applicant.

Whenever any doubt existed as to the worthiness of the applicant the physician should visit the residence of such an one and more fully satisfy himself of the financial condition of the suspected one.

A practical guard of this kind would, I think, carry with it a healthy moral effect on the applicants for charity, and, when once established, be productive of preventing impostors from even making application at the dispensaries.

These physicians should receive a salary paid out of the funds of the city, which would have the effect of making them independent of the dispensaries and uninterested in the supply of material for clinical teaching, which of itself encourages the abuse of medical aid.

The question of the expense of an extra salaried officer to each of these institutions may be met at the outset by the fact that a large saving could be effected in the drug department, probably equalling, if not exceeding, the salary of the extra physicians. Truly yours,

J. A. MEEK, M.D.

20 WEST TWENTY-FIFTH STREET.

THE VAGINAL DOUCHE AFTER LABOR BELIEVED TO BE A NEW MISTAKE—THE STRICT HORIZONTAL POSITION, AN OLD ONE—SOME PLAIN AND COMMON-SENSE RULES.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR: Having noticed the articles recommending the medicated vaginal douche after labor as a preventive of puerperal fever, and knowing how grasping Americans are for anything new, would it not be wise to give the profession some statistics upon the subject, for and against; also a collection of the experiences of the profession at large?

I, for one, can state that during a general practice of nine years I have never recommended the use of the douche, medicated or otherwise, in such cases, and I have never had a single case of puerperal fever in one of my patients.

I have had cases of laceration of the cervix and rupture of the perineum, and I would no more think of

recommending the medicated or any other douche in those cases to *prevent* fever, than I would recommend the opening of an incised wound for the same purpose.

The preventives which I have relied upon are: 1. Patient to rise to a sitting position two or three times a day to empty bladder and rectum. 2. Take quinine sulph. fifteen to twenty grains a day in five-grain doses, for six days, or longer if the temperature indicate the slightest fever.

I am well aware of the fact that many practitioners will hold up their hands in horror at the idea of allowing, nay, in instructing a woman to rise from her bed to the stool immediateiy following labor; and, in fact, discard the bed-pan altogether. I am fully aware of the grave dangers pictured to the student in the lecture-room, and in the many works upon the subject; and for that reason alone I am emboldened to give the following:

When I graduated, in 1875, an old sage in the professio nadvised me as follows: "My boy," said he, "I am an old man; I have practised over fifty years, and, as you are aware, have been very successful. In regard to your labor cases, I would give you the following advice: First, as you intend practising in the city, make a habit of leaving your forceps at your office; for if you ever require them you will always have ample time to send for them, and your not having them with you may save some woman much trouble. Second, do not examine your patient much or often. See that things are right, and then let nature manage the case. Third, instruct your patient when she desires to empty bladder or rectum, to have her night-glass conveniently placed near the bed in a chair, and, while supporting the abdomen with her hands, to rise carefully from the bed to the stool; and to return in the same way. Her rising will allow all clots, fragments of placenta, etc., to pass from the vagina, and you will be surprised to see how few cases of puerperal fever you will be troubled with. As for its bringing on hemorrhages, etc., that is all bosh. Let your patients keep the outside of their bodies clean, attend to the calls of nature in a common-sense way, and depend upon nature to keep the inside all right, and you will be surprised at your success in this line of practice." I have followed the above advice to the letter, and am glad to say have never lost a single case, nor have I had any puerperal fever to contend with.

In conclusion I would state that my efforts in this line of practice is to keep the vagina of the lying-in woman as though it were a sealed room, keeping out of it everything—air, water, fingers, and instruments—for by their interference, I feel satisfied, could we have careful unbiased statistics, we would find that they, with the *unchanged horizontal position*, produce more cases of puerperal fever than they prevent. Respectfully,

A. E. DUGAS, M.D.

AUGUSTA, GA.

THE COLLECTIVE INVESTIGATION OF DISEASE—SUGGESTIONS ON THE COLLECTION OF FACTS REGARDING INFECTION AND THE EARLY PHASES OF VENEREAL DISEASES.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR: Attention has recently been called to a subject—the collective investigation of disease—which I have for many years past regarded as the key-note to all prophylaxis and intelligent treatment of disease. To establish a system of this character it will, in my judgment, be necessary to start with subjects, or questions, of a practical nature. I know of none of more general interest and susceptible of easier accomplishment than that of venereal diseases. I suggested and advocated this plan eleven years ago, in an article on "The Treatment of Syphilis discussed at the Medical Congress at Lyons, with Remarks," published in the *American Journal of Syphilography and Dermatology*, April issue, 1873. I was ten years "in advance of the times." As the subject is still a good one and the hour seems more propitious, may I not claim a little space to repeat my propositions to your many readers, with the hope now of attracting to the subject the attention I think it really deserves?

"It is well known that comparatively little attention has been paid to the collection of statistics of a trustworthy character of the phenomena of syphilis. This may be accounted for from the fact that only a very small proportion of those who suffer from the disease come under the care of experts who utilize the information they gain by clinical observation. It cannot, of course, be expected that every one who treats venereal diseases will take any special pains to record their observations. Many who might be induced to do so are deterred from want of time, the ability, and other causes, which could be overcome if a simple style of record were prepared in which the main features of the disease could be noted in a printed form of blank prepared for the purpose.

"If any branch of medicine is to be put on a sound basis, it can only be accomplished in the manner, and on the same principles, pursued in other departments of science. Hitherto it has been too much the habit to collect statistics for the purpose of sustaining a theory—too seldom to throw broad rays of light on our knowledge of disease. This has certainly not been creditable to us as scientific observers. Statistics of venereal diseases will not serve any scientific purpose until a system is adopted by which every practitioner may be enabled to register in a certain definite form a full and distinct account of every case of venereal infection coming under his care, and which may be placed at the disposal of those who are devoting their attention to the mysterious problems of the evolution of syphilis. This will doubtless seem a very difficult task. It is, but the difficulties may be overcome in the manner we suggest: to prepare blanks of a uniform size, with printed suggestions calling for full answers on all the special points and features of interest in the history of syphilitics. To those in general practice we must look for assistance in the advancement of our knowledge of special diseases."

I will gladly contribute the results of my own experience, or aid any one with any further information coming within the range of my own observations.

MORRIS H. HENRY, M.D.

581 FIFTH AVENUE,
NEW YORK, March 1, 1884.

THE USE OF PEROXIDE OF HYDROGEN IN DENTAL SURGERY.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR: The letter of Dr. R. W. Steyer on page 81 of THE MEDICAL RECORD, concerning the uses of peroxide of hydrogen in the treatment of venereal diseases, also contains a brief reference to its use in dental surgery as a mouth wash. The attention of physicians and surgeons is hereby directed to it, and its efficiency as a thorough cleanser of the oral cavity when that cavity needs such cleansing; but it is not as a mouth wash alone that it is used in dental surgery. Practitioners of dentistry are using it daily for the bleaching of pulpless (discolored) teeth, in the treatment of alveolar abscess, and as an injection into the pockets of the so-called Rigg's disease, or pyorrhœa alveolaris.[1] As a germicide for the destruction of the micrococci found in the pus of pyorrhœa it is unrivalled. Your correspondent has used it as an injection in abscess of the antrum, with most gratifying results. Its *modus operandi* seems to be as follows: When H_2O_2 is brought in contact with pus, the extra O is liberated so rapidly that the H and S of the tissues immediately

[1] For a more extended account of the uses of H_2O_2 in dental surgery, see the Dental Cosmos, October, 1882–83; also the Independent Practitioner, February and March, 1883, etc.

combine with it, resulting in H_2SO_4 in small quantity, sufficient to glaze the surface of the pus-producing area, thereby affording an opportunity for the exuding protoplasmic material to be organized into new tissue. The remaining unsatisfied atoms of O quickly distend the pus sac or pocket, such as is observed in alveolar abscess, and force the contents through the root canal of the tooth or the fistulous tract to the gum surface. The introduction of H_2O_2 in dental surgery is already revolutionizing the treatment of the above-named diseases, as it is likely to do in ophthalmic, aural, and genito-urinary surgery.

Yours respectfully,

A. W. HARLAN, D.D.S.

70 DEARBORN STREET, CHICAGO.

New Instruments.

ORAL SPECULUM.

BY D. H. GOODWILLIE, M.D.,

NEW YORK.

ONE of the most essential things in operations within the mouth is an oral speculum that keeps the mouth well open, is not in the way of the surgeon, and gives comfort to the patient.

The above cut represents such an instrument as I have had made by Mr. W. F. Ford, of Caswell, Hazard & Co., and used with great satisfaction. I have used it in the operation of staphylorraphy in very young children, and it serves equally well in the adult. The tooth-cups, A A, are deep and long enough to embrace two molars. There is placed in them a small quantity of soft rubber, or, what has proved more useful to me, gutta-percha, as it can be warmed and the teeth and gums embedded in it. This gives a firm bearing and is very secure. The sliding-ring B holds it very firm against the teeth, and in an instant can be released by sliding it to the centre of the shaft, which lies close upon the cheek. By means of the handle the head of the patient can be controlled by an assistant.

INSANITY IN AUSTRIA.—There are in Austria 21 public and 5 private insane asylums, containing a population of 6,200 persons, who are cared for at a yearly cost of 1,610,000 florins. The largest asylum is at Prague, and contains 1,322 beds; that at Vienna contains 553 beds. Most of the asylums contain from 300 to 400 beds. About 16,168 insane persons are treated in their homes. The entire number of insane is 25,038, of whom 13,669 are males; 11,369 females. Of these cases 11,068 are between the ages of 25 and 40 years.

Army and Navy News.

Official List of Changes of Stations and Duties of Officers of the Medical Department, United States Army, from February 24, 1884, to March 1, 1884.

BROWN, JOSEPH B., Lieutenant-Colonel, and BILLINGS, JOHN S., Major, Surgeons. Directed to attend the International Health Exhibition in London, and, as delegates, the International Medical Congress at Copenhagen, to be held in May and August next, respectively; also to include Berlin in their route to or from Copenhagen, and to be governed by special instructions from the Surgeon-General in complying with this order. S. O. 44, par. 8, A. G. O., February 21, 1884.

WOODWARD, JOSEPH J., Major and Surgeon. Leave of absence still further extended six months on account of sickness. S. O. 44, par. 11, A. G. O., February 21, 1884.

HORTON, S. M., Major and Surgeon. Having reported at these headquarters from leave of absence, ordered to Fort Hays, Kan., for duty. S. O. 40, par. 2, Head-quarters Department of the Missouri, Fort Leavenworth, Kan., February 20, 1884.

DIETZ, WM. D., First Lieutenant and Assistant Surgeon. Assigned to temporary duty at U. S. Military Academy, West Point, N. Y. S. O. 46, par. 1, A. G. O., February 25, 1884.

PHILLIPS, JOHN L., First Lieutenant and Assistant Surgeon. Assigned to temporary duty in Department of the East. S. O. 46, par. 1, A. G. O., February 25, 1884.

KNEEDLER, WM. L., First Lieutenant and Assistant Surgeon. Assigned to duty in Department of Dakota. S. O. 46, par. 1, A. G. O., February 25, 1884.

BLACK, CHARLES S., First Lieutenant and Assistant Surgeon. Assigned to duty in Department of Texas. S. O. 46, par. 1, A. G. O., February 25, 1884.

Official List of Changes in the Medical Corps of the Navy, during the week ending March 1, 1884.

WHITAKER, H. M., Assistant Surgeon. From the Portsmouth, and on sick leave.

GREEN, E. H., Passed Assistant Surgeon. From Museum of Hygiene, and waiting orders.

News of the Week.

CONTAGIOUS DISEASES—WEEKLY STATEMENT.—Report of cases and deaths from contagious diseases reported to the Sanitary Bureau, Health Department, for the week ending March 4, 1884:

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Cases.								
February 26, 1884.....	0	11	64	5	39	44	0	0
March 4, 1884.....	0	10	78	3	41	35	0	0
Deaths.								
February 26, 1884.....	0	5	11	5	3	23	0	0
March 4, 1884.....	0	7	19	3	4	21	0	0

MEDICAL DEPARTMENT, UNIVERSITY OF BUFFALO, AND THE MEETING OF THE ALUMNI ASSOCIATION.—The Medical Department of the University of Buffalo held its annual commencement on the evening of February 26th. On this occasion sixty-two gentlemen received the degree of Doctor of Medicine. This is the largest class ever graduated here. After the conferring of the

degrees the charge to the graduates was delivered by Dr. Roswell Park, of the faculty. Reviewing the history of the college, and paying a word of tribute to each of the illustrious names found on the roll of those who had been its teachers in the past, he urged upon each member of the class to do his utmost to maintain and to add to the fame of his alma mater. Then followed the address to the Alumni Association, by the Hon. James O. Putnam, of this city. This address was the centre of interest in the exercises of the evening. Beautiful in its construction and broad in its criticism of the profession, it taught us to forget the narrow lines of systems and of theories, and to fix the attention steadly upon the ultimate aim of our calling. Listening to it you believed, if you ever doubted, in the grandeur of the medical profession. It was an incentive to a renewal of our efforts for the elevation of the science and art of medicine. The meeting of the Alumni, which occurred during the day, was as interesting as any in the history of the Association. The scholarly and instructive address of the President, Dr. E. N. Brush, of Utica, was an eloquent plea for a higher medical culture and better means of education. We quote one passage as follows: "Let us, then, as practitioners demand of young men entering the profession a thorough foundation—a foundation which shall be tested by a preliminary examination before admission to a medical college. Let us further urge upon medical colleges an extension of the curriculum and time of study, and finally let us labor for the day when medical schools shall be thoroughly endowed, well equipped with libraries and laboratories, and where the highest scientific attainments and longest and largest experience shall find relief from active work of professional life in collegiate positions." The following papers were then read: "Energy of Nerve and Brain" (illustrated), Professor W. H. Pitt, M.D., Buffalo; "Operations for the Radical Cure of Hernia and their Results," Professor Roswell Park, M.D., Buffalo; "Common Defects of House Drainage and Plumbing, with the Proper Remedies" (illustrated by stereopticon), William F. Sheehan, M.D., Rochester. The officers then elected for the ensuing year were: Dr. E. C. W. O'Brien, of Buffalo, President; Dr. Conrad Diehl, of Buffalo, First Vice-President; Dr. D. W. Harrington, of Buffalo, Second Vice-President; Dr. Mary B. Moody, of Buffalo, Third Vice-President; Dr. W. F. Sheehan, of Rochester, Fourth Vice-President; Dr. Theo. H. Boysen, of Buffalo, Fifth Vice-President; Dr. Henry Lapp, of Clarence, Trustee; Dr. A. M. Barker, of Buffalo, Secretary; Dr. E. C. W. O'Brien (ex-officio), Dr. Charles Carey (ex-officio), Dr. C. A. Ring, Dr. J. W. Putnam, Dr. F. H. Potter, Executive Committee; Roswell Park, Herman Mynter, J. F. King, E. T. Dorland, Honorary Members.

THE USE OF THE BROMIDE SALTS FOR ABDOMINAL NEUROSES.—Dr. J. K. Spender, of Bath, England, writes to the *British Medical Journal* upon the above subject. He says: "There is so strong a bond of therapeutic association between the bromides and the neurotic troubles of head and chest, that we are apt to forget how useful the same drugs may be for sundry disturbances of the digestive organs; and yet all the physiological analogies of the subject would lend support to this doctrine. No one claims for the potassic and sodic bromides that they can clear away heterologous exudation, and mend damaged textures. But those of us who are still old-fashioned enough to believe in 'functional derangements,' or dynamic force temporarily perverted, can easily understand that there are certain aberrations of the cerebro-spinal system which, being of the same kind wherever they are situated, may be expected to yield to the same medicines. For an elderly widow lady, tormented rather often with 'emotional diarrhœa,' I prescribed a few years ago some ordinary astringent remedies, with minute doses of opium, to be taken according to her needs. But for another malady, sleeplessness, I gave occasionally moderate quantities of bromide of potassium. She discovered, however, that the latter remedy did her diarrhœa more good than anything else, and that, whenever it was taken at bedtime, the next day passed without any alvine looseness. Fourteen years ago Dr. J. Waring Curran recommended potassic bromide for the vomiting of pregnancy; but its real value could not be determined, as other things were combined with it (*Medical Press and Circular*, July 14, 1869). But I have given the medicine in its pure form and simply dissolved in water, and never without marked, though perhaps only temporary, success. The distant echoes of cholera justify us in recalling some important observations by the late Dr. James Begbie, who spoke of bromide of potassium as able to strip that dread disease of some of its terrors (*Edinburgh Medical Journal*, December, 1866). He gave it in the earlier stage of collapse, and in quantities of twenty or thirty grains, at hourly or even half-hourly intervals; and he records the cessation of vomiting, the arrest of cramp, and the speedy return of warmth and color to the previously cold and livid surface. He tells us that the medicine was tried fairly, both in the Leith and Edinburgh Cholera Hospitals, and that its use in both institutions did not disappoint expectations. It is good to feel better fortified against the most painful and mortal of all abdominal neuroses. Lastly, I may glance at the use of the bromides in the treatment of saccharine diabetes. Here again Dr. Begbie started a line of therapeutic inquiry which has been successfully worked by other practitioners; and at this moment I have under my care a lady, between fifty and sixty years of age, whose special diabetic symptoms are clearly kept much in abeyance by a large dose of bromide of ammonium every night. Would this illustrate what has been called the 'alterative and absorbent effects' of the bromides on the liver?"

TYNDALL'S THEORY OF EXPLAINING THE IMMUNITY OBTAINED AGAINST A SECOND ATTACK OF CONTAGIOUS DISEASE.—Professor Tyndall, in the *Pall Mall Gazette*, discusses the above subject in the following ingenious manner: One of the most extraordinary and unaccountable experiences in medicine was the immunity secured by a single attack of a communicable disease against future attacks of the same malady. Small-pox, typhoid, or scarlatina, for example, was found, as a general rule, to occur only once in the lifetime of the individual, the successful passage through the disorder apparently rendering the body invulnerable. Reasoning from analogy, I have ventured to express the opinion that the rarity of second attacks of communicable disease was due to the removal from the system, by the first parasitic crop, of some ingredient necessary to the growth and propagation of the parasite.

The cultivation of micro-organisms, which is now everywhere carried on, enables us to realize the smallness of the change which in many cases suffices to convert a highly nutritive liquid into one incapable of supporting microscopic life. Various important essays bearing upon this subject have been recently published in the *Revue Scientifique*. M. Boulsy there draws attention to the results obtained by M. Raulin in the cultivation of the microscopic plant named Aspergillus niger. The omission of potash from Raulin's liquid suffices to make the produce fall to one twenty-fifth of the amount collected when potash is present. The addition of an infinitesimal amount of a substance inimical to the life of a plant is attended with still more striking results. For example, one part in sixteen hundred thousand of nitrate of silver added to the liquid entirely stops the growth of the plant. And now we come to the important application of this fact which has been indicated by M. Duclaux. Supposing the aspergillus to be a human parasite—a living contagium—capable of self-multiplication in the human blood, and of so altering the constitution of that liquid as to produce deah;t then, the

introduction into the blood of a man weighing sixty kilogrammes of five milligrammes of the nitrate of silver would insure, if not the total effacement of this contagium, at all events the neutralization of its power to destroy life. An index finger here points out to us the direction which physiological experiment is likely to take in the future. In anticipation of the assault of infective organisms, the experimenter will try to introduce into the body substances which, though small in amount, shall so affect the blood and tissues as to render them unfit for the development of the contagium. And subsequent to the assault of the parasite he will seek to introduce substances which shall effectually stop its multiplication. There are the strongest grounds for hope that in the case of infective diseases generally such protective substance will be found.

CHLOROFORM NARCOSIS DURING SLEEP.—Dr. E. C. Brush, Surgeon Ohio Central Railroad, Corning, O., writes: "The numerous articles published in THE MEDICAL RECORD during the past few months in regard to chloroform narcosis during sleep have brought out considerable testimony for and against its practicability. Seeing is believing, and as I *have seen* chloroform narcosis produced during sleep, I wish to add my testimony in its favor. I do not, by any means, claim that every one can accomplish this end, but know that it requires skill and experience in administering the drug, and without these factors the attempt would be, as a rule, unsuccessful. Serious doubts exist in my mind as to its being successfully used for criminal purposes by criminals, unless the administrator is an expert in its use. It is true that it *might* be, but the chances are largely against it. I was present and witnessed the experiments by Dr. Halderman in the Ohio Penitentiary. Being the officer in charge of the Prison Hospital at that time, I was surprised one night by Dr. Halderman calling with some medical friends and announcing the purpose of their visit. The convicts were not expecting anything of the kind, and had anybody known of the proposed visit it would have been myself. Dr. Halderman had purposely kept me in ignorance of his intended experiments, so as to insure that nothing of the kind could be expected. I can add nothing to Dr. Halderman's report (MEDICAL RECORD, June 2, 1883), but substantiate every word of it. The narcosis produced was profound, accompanied by stertorous breathing and a complete relaxation of the muscular systems in both subjects. Before seeing these experiments I was a doubter myself, but now firmly believe that, if properly administered, chloroform narcosis can be produced during sleep, not always, but at least occasionally."

A CASE OF INFANTILE SPINAL PARALYSIS WITH CEREBRAL COMPLICATION EXCITED BY INTESTINAL IRRITATION.—Dr. G. H. Arton, of Winnepeg, Manitoba, writes: "A case recently occurring in my practice has seemed to me worthy of record, not so much as a scientific contribution as a *curio*, which might be of service to some who, like myself, are not specialists, but general practitioners. I was called a few months ago to see a child between four and five years of age, supposed by the parents to be suffering from worms. They had already administered some vermifuge supplied by a druggist, but the symptoms were steadily on the increase and no worms had appeared in the stools. These symptoms were a growing inability to use the legs, great peevishness, and somnolence. When placed on her feet the child would fall down, and when supported and made to advance she would cross her legs and throw them about in an apparently purposeless manner. On my arrival I verified the statements of the parents, and in addition found some muscular weakness in the arms, tremulousness of hands, and inability to coordinate. Her temperature was normal; respirations, if anything, subnormal; pulse hard, small, and rapid. The whole surface of the body seemed hyperæsthetic. Both pupils widely dilated and feebly responsive to a bright light. Bladder acted all right, and the mother assured me that the bowels were regular. She added that she never allowed the child to use the water-closet, but always a chamber, and that she attended to her herself and knew she had a daily motion natural in character. There was no special spinal tenderness, and the abdomen presented no peculiarities. Reflexes could not be made out satisfactorily. There were occasional twitches, but nothing approaching to spasms. Examination of urine, chemical and microscopic, afforded no light. I gave a dose of calomel. This did not operate at all, but produced certain indications of distress which led me to direct her mother to use an enema. To my surprise, the first enema of nearly a pint was retained. A second was returned scarcely stained, and now it was evident that there was some hitherto undiscovered bowel trouble. This added to the difficulty of diagnosis, and as no symptoms appeared pointing to anything but severe constipation, it was considered as connected with the nervous lesion, whatever that might be. In the meantime the patient grew worse; her speech was thick, and it was almost impossible to keep her awake a minute at a time. When she was awake she complained of abdominal pain, but it did not prevent her sleeping. She was conscious when awake, and knew her parents and brothers. Her pupils were completely inert. Feeling now almost certain of my diagnosis (cerebral anæmia), I gave sulphate of morphia in one-half-grain doses. In a short time I had the satisfaction of seeing a slight improvement in the general aspect of the case, and the patient passed with incalculable difficulty a hard lump of fæces, about one inch in length and as large in diameter as any adult would pass. Feeling assured that more scybalæ remained, I ordered ox-gall enemata, which brought away in all fifteen distinct lumps similar to the first. Improvement followed, and kept up. Gradually somnolence disappeared, and the arms and hands improved. In about a week the legs were almost entirely under control, although for a month afterward her gait was more like a child's beginning to walk. Her speech remained longer affected, and in fact this symptom has not quite disappeared at date. Her pupils recovered their action very early. Her bowels now act normally. In conclusion I would call attention, first, to the mother's statement as to the regularity of the child's bowels before I saw her, whereas she had been evidently constipated; second, to the cerebral anæmia, in this case depending on the constipation, while the books tell us that such constipation depends on cerebral anæmia, and we usually find symptoms of cerebral hyperæmia when such marked constipation exists."

REMARKABLE RECOVERY FROM A SEVERE ABDOMINAL WOUND WITHOUT ANTISEPSIS.—Dr. J. C. McMillan sends us the history of a man, an engineer, who had received a cut in the abdomen during a fracas. The cut was four inches long, near the umbilicus, and extended into the peritoneal cavity. The intestines were protruded, and the small intestine cut half through in one place. The patient had lain in the road for four hours before Dr. McMillan saw him, and the protruded bowels were covered with dirt. He was taken to a house, anæsthetized, the intestines cleaned with luke-warm water, the small intestine sewn up with silk suture, and the abdominal wound closed. The patient was well and discharged in two weeks.

AN INQUIRY ABOUT DRUG FARMS.—Dr. Frank P. Hudnut, of Salem Centre, N. Y., inquires what kind of medicinal plants could be raised in this climate. We would refer him to the Botanist of the Agricultural Department at Washington, D. C.

THE TRUSTEES OF THE COLLEGE OF PHYSICIANS AND SURGEONS have elected Dr. John C. Dalton, for so many years Professor of Physiology, President of the College, in place of Dr. Alonzo Clark, who has resigned. Dr. John G. Curtis now holds the Chair of Physiology.

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Original Articles.

MALARIA.[1]

BY GEORGE M. STERNBERG, M.D.,

MAJOR AND SURGEON, U.S.A.

(Continued from p. 256.)

IN support of the general statement that heat is an important factor in the production of malaria, let us compare the average amount of sickness from malarial diseases at the four stations in each of our tables which are farthest north with that at the four farthest south. Adding the figures representing the ratio per thousand, we find the average to be for the northern stations on the Atlantic seaboard 64, and for the southern stations 212. For the interior posts (Table No. 2) the average of northern stations is 71.5 and of the southern stations 1,028.

The difference is, in truth, considerably greater than this, for no inconsiderable portion of the sickness from malarial diseases at the extreme northern stations is due to exposure in malarial localities farther south, and not to malaria of local origin. Regiments are occasionally changed from unhealthy southern stations to healthy northern stations, and detachments of recruits are frequently sent from dépôts located within the limits of active malarial development to the extreme northern stations where malaria of local origin is unknown or nearly so. Thus, at Fort Trumbull, Conn., which is not included in our list, we find that but two cases of malarial fever occurred in a garrison having a mean strength of 92 during the four years 1870–1874. But turning to a previous sanitary report we find that in 1869 there were thirty cases in a garrison of 76. Evidently those gentlemen who claim that there has been during the last few years a notable increase of malaria in Connecticut are mistaken. Our statistics show that at this point, at least, malarial diseases were far more prevalent in 1869 than during the four years following. But our statistics do not tell the whole truth. A remark attached to the sanitary report for 1869 states that the malarial diseases occurred in a company just from Fort Brown, Texas.

Let us now consider more in detail the facts relating to the prevalence of malarial diseases at some of the stations represented in our tables. It is somewhat surprising to find that at Fort Sullivan, Me., the most northern military station on the Atlantic seaboard, where the mean temperature for the months of July, August, and September, is but a trifle above 60° F., the amount of sickness from malarial diseases is greater than at any one of the three stations which follow it in our list. Our surprise is increased when we read that the island upon which Fort Sullivan is situated is a sterile mass of trap rock, about four miles long by two in breadth; that the fort is on an eminence about one hundred and fifty feet above tide-water, and that the drainage is perfect. Upon referring to the consolidated sick-report for each year, from which our ratio for the four years was obtained, we find that all of the cases reported, viz., five of remittent and seventeen of intermittent fever, occurred during the single year, 1872–73, while the record is a blank so far as the other three years are concerned. Calling to mind a fact within my own knowledge, the explanation of this unusual amount of sickness is simple enough. In the fall of 1872 an artillery regiment was transferred from the extreme south to the northern seaboard stations. Evidently one of the companies of this regiment has been stationed at Fort Sullivan, and, in accordance with common experience, this change to a northern climate has given rise to attacks of periodic fever among these victims of malarial poisoning. The explanation is a plausible one, but it is not true. I find by investigation that the garrison at Fort Sullivan in 1873 was the same as in 1871 and 1872. My informant is a colonel in the army, who during the period referred to was a major in the artillery regiment which garrisoned the forts upon the New England coast. How then shall we explain this unusual amount of sickness from malaria at a station where some of the conditions which are supposed to be essential for the production of the malarial poison are absent. We might say, this upsets all theories and shows us that we know nothing about the factors concerned in the evolution of that hypothetical thing "malaria." You have your choice between this complete confession of ignorance and the explanation given by the colonel from whom I learned that no change in the garrison had occurred. As this explanation reflects to some extent upon the profession, upon the medical corps of the army, and upon the value of my statistics, I do not feel prepared to endorse it. But I do not feel at liberty to withhold it from you, as my informant is a close observer and a man of extended experience in malarial localities. He has been stationed at Fort Sullivan, and never knew that there was any "malaria" there. In his opinion the malaria which appears in our table was evolved from the fertile brain of the post-surgeon, who, according to the colonel, was not only "malaria-crazy," but a victim of the opium habit, who soon after became an inmate of an insane asylum and is since dead. Whether the explanation offered by the colonel is the true one in this particular instance I am not prepared to decide, but my own observations lead me to believe that mild cases of typhoid fever, and cases exhibiting slight febrile excitement and malaise resulting from crowd-poisoning, are not infrequently entered upon our sick reports as cases of malarial disease.

Passing southward from Fort Sullivan, Me., the first station which seems to call for special remark is Fort Hamilton, New York Harbor. How shall we account for the large amount of sickness from malarial diseases at this post? The following quotation from the report of the medical officer who has furnished the statistical data from which the ratio, as given in our table, has been computed will perhaps throw some light upon the subject:

"The features of the country to the north and east of the fort are peculiar. Along the shore the banks are precipitous, and the fort stands on an elevation about forty-seven feet above low water. Back from the shore the land becomes rolling and exhibits a series of elevations and depressions till we arrive at Flatlands and Flatbush, names which sufficiently express the character of the surface. This peculiar feature is the most important element, next to its insular position, in the topography of the post, the soil being alluvial, consisting for the most part of clay on top, then sand, pebbles, etc., and frequently a second stratum of clay, and the rolling character of the surface

[1] Read at the meeting of the American Public Health Association, Detroit, Mich., November 13, 1883.

producing numerous depressions, some round, some oblong, varying in size from thirty feet in diameter to as many yards. The result is that the whole country is dotted over with ponds from the surface drainage. Some of these ponds are clear, with a gravelly or clayey bottom and grassy borders; others are surrounded with trees, and filled up with bushes and rank grasses, and covered in summer with a green slime. It has been calculated that within a radius of a mile from Fort Hamilton there are at least sixty of these ponds. East of the fort, near the new battery, is a marsh of considerable extent, formed by the drainage of the higher land, and imperfectly separated by a bank of sand from tide-water. . . . The natural drainage is bad; the ground being hilly, the water collects in the hollows, forming ponds that have become filled with rank vegetation, the depth of water continually varying, being filled during the winter and spring by rain and snow, and in the summer and autumn becoming so nearly dry as to expose almost the entire beds to the direct solar rays" ("Report on Hygiene of the U. S. Army," 1875, p. 41).

As accounting, in part at least, for the considerable amount of sickness from malarial diseases at Fort McHenry, Md., we quote from the report of the medical officer stationed at that post:

"The marshy piece of ground spoken of in reference to the officers' quarters, and which fronts northeast on the Patapsco, should be filled in, or some means devised to prevent the overflow it is subject to, as it is a fruitful source of disease."

Although not included in our table, because not directly on the seaboard, we may mention here Fort Foot, Md., an exceptionally unhealthy post, situated upon the banks of the Potomac River, eight miles below Washington. The ratio per thousand of cases taken sick with malarial fevers is more than double that at Fort Hamilton, the average for four years being 1,449. The following remarks by the medical officer making this report explains the unusual amount of sickness in a satisfactory manner:

"In the rear of the fort is an extensive ravine, running in a northerly direction until it gets within about five hundred yards of the river, when it flattens out into a large morass, loaded with all kinds of organic matter in every stage of decomposition, giving forth exhalations most prejudicial to the health of the garrison. Along the shore of the river this place assumes somewhat the form of a cove, acting as a receptacle for all the filth floating down the stream, which, being driven over the marsh by the tide, remains until destroyed by time. This piece of ground is overflowed by every high tide, leaving in all directions stagnant pools. It is believed that the malarial diseases prevailing at the post are largely due to the action of the sun's rays upon this large surface of decomposing organic matter."

The comparative healthfulness of Fort Macon, Ga., which is nearly three degrees south of Fort Monroe, where the ratio is greater, is accounted for by its insular position and exposure to the pure breezes from the Atlantic. From the "Report on Hygiene" we learn that it occupies the extremity of an island which is a mere sand-bar. "The porosity of the soil and the slope of the glacis render the natural drainage most effective. . . . It is most probable that what little miasma is experienced is wafted by northern winds from inland swamps."

Again we find an exceptionally good record at Savannah, Ga., which is two degrees farther south than the last-mentioned station. When we learn that the barracks occupied by the troops at Savannah occupy a square in the central part of the city, and that the company quarters are in the upper story of a two-story and basement brick building, we shall have no difficulty in reconciling this comparative healthfulness with the general proposition that malarial fevers prevail more extensively in southern than in northern latitudes; or, in other words, that heat is one of the factors which is concerned in the evolution of malaria.

If, now, we compare our two tables, one with the other, we shall find that, as a general rule, stations in the interior suffer more from malarial diseases than those in the same latitude upon the seaboard, and that this difference cannot be ascribed to a more elevated temperature. Thus if we compare Fort McHenry, Md., with Fort Leavenworth, Kan., which is in nearly the same latitude, we find the ratio of sickness is greater at the last-mentioned station, while the mean temperature for the year is considerably less. But Fort McHenry is an unusually unhealthy post for the seaboard, and the difference is much more striking when we compare Fort Macon, N. C., or Charleston, S. C., with such a station as Jackson, Miss., which is in about the same latitude; or Baton Rouge, La., with Key West, Fla., which is six degrees farther south, and has a mean annual temperature more than ten degrees higher. We must note, however, that the summer temperature at Baton Rouge is a little above that at Key West. These comparisons serve to illustrate the fact that malaria is of telluric origin, and that a station facing the broad Atlantic has the advantage, other things being equal, over a station in the interior. But in the case of these two exceptionally unhealthy posts in the interior, there are no doubt special reasons to which the unusual amount of sickness from malarial diseases must be ascribed. These are not referred to in the report relating to Jackson, Miss., but as regards Baton Rouge we read: "The malarial diseases prevailing at the post are immediately due in great part to the tract of swamp bordering the northern edge of the reservation, and the continuance of winds from that quarter is accompanied by a marked increase in the number and gravity of the cases."

It may be thought that I am wasting my time in attempting to prove, what is very generally recognized to be a fact, viz.: that heat is one of the factors essential to the development of malaria, and that the malarial poison is evolved most abundantly from marshes and undrained lands rich in organic material of vegetable origin, and that consequently we are justified in speaking of malaria as a marsh miasm and of the malarial fevers as paludal fevers. But it has seemed to me to be important before we enter upon a general discussion as to the nature of malaria, that the broad facts which are well established should be prominently brought to view, as these are sometimes lost sight of by writers and speakers, and the apparent exceptions are given a more prominent place than is accorded to the vast accumulation of evidence in favor of these fundamental facts. Certainly all of these exceptions must be reconciled with any theory which proposes to explain the nature of malaria and the laws which govern its evolution. But it would be a step backward to put aside the positive knowledge which we have attained as regards certain of the conditions which are connected with its production, because we do not yet know all of these conditions. In speaking of malaria as a marsh poison, medical authors certainly do not intend to convey the idea that it is produced only in low, marshy places, for it is well known that malarial fevers may prevail upon superficially dry uplands and sandy plains. But that, as a general rule, malaria is more abundant and potent in the vicinity of marshes and in undrained lowlands, than in well-drained uplands is a fact so generally recognized that it is unnecessary to insist upon it. And, moreover, it is well established that malarial diseases have been practically banished from large areas in England and elsewhere, as the result of improved agriculture, and especially of subsoil drainage.

It can hardly be questioned, then, that moisture is an important factor in the production of malaria, and I think a broad view of the facts justifies the belief that it is an essential factor; for, so far as I know, there is not the slightest evidence that malaria can be evolved in the entire absence of soil-moisture. But we must not expect the prevalence of malarial diseases to bear a direct relation to the rainfall of a place, for moisture is, con-

fessedly, but one of several factors, and, moreover, an impervious subsoil may more than compensate for a scanty rainfall in producing the degree of saturation most favorable to the evolution of malaria. In studying the influence of moisture, the tables which I have arranged with reference to another question will not serve us materially, as the rainfall at a majority of the stations included in them is probably sufficient, other conditions being favorable, for an abundant evolution of malaria. The Report which furnished the figures for these tables contains, however, ample data for an interesting and profitable study of this question. This study I cannot attempt to make at present, as my paper has already been extended to too great a length.

For the purpose of obtaining additional data relating to this and other questions connected with our subject, I addressed, in March last, the following communication to the Medical Directors of the Departments of Arizona and of Texas, and to several medical officers of the army who have served in these departments, whose personal observations I believed would prove valuable:

"FORT MASON, SAN FRANCISCO, CAL.,
March 26, 1883.

"DEAR DOCTOR—At the next meeting of the American Public Health Association, to be held in Detroit, about the first of November, the subject of 'malaria' will receive special attention. I have been requested by the Executive Committee to prepare a paper presenting the actual state of knowledge as regards the nature and origin of the malarial poison, and the etiology of the malarial fevers.

"The generally accepted view that 'malaria' is essentially a swamp-poison, and that its evolution depends upon, or is associated with the decomposition of vegetable matter, under the influence of heat and moisture, has recently been called in question by intelligent physicians in the New England States, because of the apparently erratic course of the epidemic of malarial diseases which, during the past three or four years, has extended over regions previously healthy.

"It is claimed by some of these gentlemen that the accepted theory of causation does not account for the phenomena observed in these newly invaded regions, inasmuch as malarial fevers, until quite recently, did not prevail in the damp low lands, in certain sections of New England, where now malarial diseases are rife, not only in the valleys, but on the hill-sides and in localities remote from swamps.

"In order to discuss the subject intelligently I desire to obtain as extensive data as possible, and it has occurred to me that the facts relating to the prevalence of malarial diseases in hot and dry climates, like those of Arizona and portions of Texas, would be especially valuable, as the line of demarcation between the river-bottoms and the dry uplands is often very sharply drawn.

"A line officer who has spent much time in Arizona assures me that *where there is no water there is no malaria;* and I am informed by a physician who knows the territory well, that in some of the desert tracts water may be found by digging a few feet.

"I will be greatly obliged if you can assist me in obtaining the data required, and shall be careful to duly acknowledge such information as I am able to use. Your personal observations, and those of the medical officers serving at posts in your department, will be highly prized.

"Full information is requested with reference to the prevalence of malarial fevers in your immediate vicinity, or in other localities with which you are familiar. Please give detailed information as to the type of the prevailing diseases ascribed to 'malaria;' the season of greatest prevalence; the character and mode of life of the population affected; the topography of the malarial and non-malarial regions under observation, etc. I desire especially to know if your experience justifies the generalization (as applied to hot and dry regions), 'where there is no water there is no malaria.' Also, whether in apparently dry regions, where malaria prevails, water may not be found near the surface by digging. Evidence relating to the distance which 'malaria' may be carried by the wind is desired. Do you know of any facts supporting the view that malarial poisoning may result from drinking surface-water in malarial localities? Where exposure to malarial influences has been brief, as in the case of soldiers habitually living in a healthy locality passing a single night in a malarious river bottom, it will be exceedingly interesting to know how soon after exposure the symptoms of malarial poisoning have been developed. In other words, facts relating to the period of incubation are desired. Facts relating to the prevalence of malarial diseases in previously healthy localities, as the result of irrigation, of cultivation of the virgin soil, of engineering operations, etc., are requested. Also facts relating to the influence of forests, of winds, of artificial or natural drainage, etc. Have any well-authenticated instances of paroxysmal fevers, resulting from exposure in malarious localities, among the lower animals, come under your observation? If so, please give full particulars.[1]

"Communications relating to this subject should be placed in my hands by September 1st. Systematic and concise statements, embracing data of value, will be appended to my paper with due credit to the author, and will doubtless be published in the next annual volume of the 'Transactions of the American Public Health Association.' Very respectfully, your obedient servant,

GEO. M. STERNBERG,
Major and Surgeon, U.S.A."

In reply to my communication, Colonel Jos. R. Smith, Medical Director, Department of Texas, in a letter dated August 2d, made some interesting statements, which I take the liberty of quoting, and furnished me a valuable table, which I submit for consideration without remark, because of the already too great length of my paper. He says:

"I enclose herewith a table exhibiting the absolute and relative number of cases of periodic fever occurring among the white and colored troops, respectively, and at each military post in this department during the year ending June 30, 1883.

Table Exhibiting Prevalence of Periodic Fevers at Different Posts in the Department of Texas.

Posts.		Mean strength.	Remittent fever.	Quotidian intermittent fever.	Tertian intermittent fever.	Quartan intermittent fever.	Total periodic fevers.	All cases of disease, etc., reported.	Per cent. of periodic fevers to all kinds.
Fort Brown	White.	195	60	117	2	..	179	540	33.15
Fort Clark	White.	507	17	183	23	..	223	787	28.46
	Colored.	34	..	..	..	..	..	18	0.00
Fort Cucho	White.	230	16	2	1	..	39	430	9.07
	Colored.	130	..	1	..	..	1	191	0.52
Fort Davis	White.	79	..	19	..	..	19	123	15.45
	Colored.	486	5	74	7	..	86	1,216	7.07
Fort Duncan	White.	122	37	8	7	..	52	224	23.21
Fort McIntosh	White.	135	1	23	9	..	33	274	12.04
Fort McKaroll	White.	59	..	8	..	..	8	72	11.11
Fort Ringgold	White.	170	..	74	2	..	76	370	20.54
Fort Stockton	Colored.	104	3	1	..	2	6	58	10.34
San Antonio	White.	247	16	11	27	..	54	377	14.32
Total White		1,744	147	465	71	..	683	3,197	21.36
Total Colored		754	8	76	7	2	93	1,483	6.27
Total		2,498	155	541	78	2	776	4,680	16.58

"From it you will see that the percentage of these diseases was more than three times as great among the white troops as among the colored troops. Where white and colored troops were serving side by side at the same post, almost an equally great difference is observed.

[1] The writer is engaged in a more extended study of this subject, and will be obliged to any one who may be cognizant of facts of a definite character relating to the various questions asked in this letter, if he will communicate them to him. Address care of the Surgeon-General, U.S.A., Washington, D. C.

"During the year previous, viz., that ending June 30, 1882, the percentage of cases of periodic fever occurring among the white troops was more than *four* times the percentage of cases occurring among the colored troops.

"With the locality of these posts you are in a general way familiar, and speaking in a general way the periodic fevers have been most prevalent in garrisons located in the valley of the Rio Grande.

"I have never known of cases of periodic fever *logically* attributable to drinking surface-water in so-called malarial regions. I have known periodic fevers to occur in men who had drank surface-water in such regions. At the same time others who drank the same water failed to suffer from the fever, and others who never drank the surface-water suffered from the attacks of the intermittents.

"An answer to your question as to the type of the prevailing diseases ascribed to malaria—season, character of population, etc., would require an essay. A physician now in my sphere of observation designates any disease of type to him unknown or obscure as "malaria." You will easily see how general, then, may be the type of diseases "ascribed" to malaria.

"Many years ago I reported to the Surgeon-General instances where intermittent forms prevailed in newly inhabited locations—where these intermittents gradually changed to remittents with length of occupancy, and where, after still longer occupancy, the remittents more or less disappeared, to be replaced by simple continued fevers.

"I also reported, from observations on a large scale during the war, that in many parts of the Department of Arkansas, where intermittents and remittents prevailed in some years, these fevers would almost disappear in some years, to be replaced by diarrhœas, and dysenteries. The presumption appeared to be that, the same cause answering for both, in some years one would be substituted for the other, the reason for the substitution not being obvious—perhaps the greater or less intensity of the poison.

"Concerning malarial diseases in dry localities, and the possibility of finding water there, I will only say that in very many places in Texas heretofore supposed to be dry—even in the Llano Estacados—water has been found by digging, and that not at very great depths."

Colonel J. Cooper McKee, Surgeon U. S. A., formerly Medical Director of the Department of Arizona, has taken much pains to obtain for me the facts relating to the prevalence of malarial diseases at Camp Grant and at Camp Lowell, Arizona, before and after the introduction of a pure supply of water for drinking purposes at these posts. These facts are embodied in a paper which he has kindly prepared at my request.[1]

The following table (No. 3) shows the meteorological conditions at the stations referred to in Dr. McKee's paper and at several other military stations in Arizona; and the average amount of sickness from malarial diseases during the four years 1870–1874.

TABLE No. 3.—*Military Stations in Arizona Territory.*

Station.	Latitude.	Total cases in four years.		Total deaths.	Mean strength.	Ratio per 1,000.	Mean annual temperature.	Annual rainfall.	Mean temp. July, August, and Sept.	Rainfall July, August, and September.
		Rem. fev.	Int. fev.					Inches.		Inches.
Camp Mojave	37° 28′	..	22	..	49	112	73.11°	6.60	91.58°	1.99
Camp Verde.....	37° 57′	3	639	..	164	978	62.74°	9.71	83.03°	3.78
Camp Grant.....	32° 25′	7	1,053	2	155	1,709	66.84°	16.89	83.84°	8.03
Fort Yuma	32° 23′	9	37	1	84	136	73.75°	2.66	90.92°	1.57
Camp Lowell	32° 12′	11	361	1	134	694	68.72°	10.16	83.80°	6.45

A reference to this table shows that malarial diseases were least prevalent at Mojave and Yuma, the two stations having the highest temperature. This seems to be accounted for by the very small amount of rainfall at these stations. On the other hand, the rainfall during the months of July, August, and September at the other three stations in our list seems adequate for the production of malaria and we find that the amount of sickness ascribed to this cause is very considerable.

With reference to Camp Mojave we read in the Report on Hygiene that "the climate is healthy, the winters pleasant, but the summers extremely hot. There is no rainy season, though thunder-showers are frequent in July and August. The annual rise of the Colorado takes place in June. The prevailing winds in the summer are from the south, and, passing over the arid plains, the air is so heated that it scorches like that from an oven. The nights are as hot as the days, the temperature not varying in the slightest degree for hours—so that no one can sleep in a house, the whole garrison lying on the open plain endeavoring to catch the slightest breeze, the walls of the houses becoming so heated as to render the barracks unendurable." In regard to Yuma, we read: "The heat rapidly increases from the latter part of May, and in June, July, August, and September may be said to be intense. In the months of July and August (the rainy season in Sonora) clouds are seen passing to the northeast, accompanied with rain, thunder, and lightning; occasionally they reach the vicinity of Yuma, and are most refreshing. During the months of April, May, and June no rain falls; then, with the thermometer at 105°, the perspiration is scarcely seen upon the skin, and it becomes dry and harsh, the hair crispy. Furniture put together at the North and brought here falls to pieces; travelling chests gape at their seams, and a sole-leather trunk contracts so that with difficulty the tray can be lifted. The extreme dryness of the atmosphere is observed in the ink, which dries so rapidly upon the pen that it requires washing off every few minutes. A No. 2 'Faber' leaves no more trace upon paper than a piece of anthracite, and it is necessary to keep one immersed in water while using one that has been standing in water some time. . . . The mercury gained the highest point last summer on the second day of July, when for two hours it stood at 113° in the shade. All metallic bodies were hot to the touch; my watch felt like a hot boiled egg in my pocket; the cords of my grass hammock were heated like wires. At such times, if the wind is from the south, the air is like that from the mouth of a furnace, hot and ovenish." This vivid description or the heat and dryness of the atmosphere makes it seem not surprising that malignant malarial germs which, born in the lagoons and rich bottom lands in the vicinity of the fort, sally forth in the still hours of the night to attack the unhappy garrison stretched upon their backs on the open parade-ground, should become shrivelled and desiccated germ-mummies, incapable of doing mischief long before they enter the open mouths of the panting and helpless soldiers. But I am not writing a romance and must beg pardon for this little flight of imagination at the close of a paper which has dealt thus far in solid facts.

I am indebted to Captain Joseph K. Corson, Assistant Surgeon U. S. A., for the following communication relating to the prevalence of malarial diseases in Arizona, and especially at Fort Yuma, at which post Dr. Corson was stationed for a considerable time.

"JEFFERSON BARRACKS, Mo., June, 1883.

"DEAR DOCTOR—In reply to yours of March 22d, I take pleasure in submitting the following, which will depend for its value upon a simple statement, unsupported by data:

"My service in Arizona and Lower California lasted four years and some months—four months at Whipple Barracks and the remainder of the time, with the exception of a month's field service, at Fort Yuma, Cal. Prescott is situated about five thousand feet above sea level, and the post still higher. The only water is obtained from Granite Creek, which about half the year is a 'sunk river.' The water-supply is obtained from wells sunk in

[1] By an oversight no duplicate copy of this paper was retained by the writer, who is therefore obliged to refer the readers of THE MEDICAL RECORD to the forthcoming volume of the Transactions of the American Public Health Association, in which Dr. McKee's interesting communication will doubtless be published in full.

the bed of this stream. The region is a comparatively fertile one for Arizona, and rains in the latter half of summer and early fall are frequent and heavy. My service there was from June to October, and malarial fevers, chiefly in a remittent form, prevailed to a considerable extent, both in town and post. There were certainly few of the characteristics of a malarial region in this locality. A mountain town, with excellent natural drainage and no swamps or other centres of decomposing vegetation, and a clear, bracing climate. For one-half the year there was no visible water, though this could be procured in abundance a few feet below the bed of the stream. At Fort Verde, forty miles from Prescott, situated in the valley of the Rio Verde, on fertile bottom lands, malarial fevers prevailed so strongly as to necessitate its abandonment.

"Yuma is situated at the junction of the Colorado and Gila Rivers, in the ultra hot and dry part of the continent, so far as rain is concerned, the annual average precipitation scarcely exceeding two inches. The Colorado River has the reputation of being free from malaria, and my experience has led me to believe this to be well deserved. It flows swiftly through a bottom remarkably free of small vegetation. The mining towns along its course for a hundred miles above Yuma I have had opportunity to know are remarkably healthy. The Gila, in the eastern half of the Territory, where rains are comparatively frequent, has the character of a highly malarious stream. It is sluggish, alternately sinking and rising, and bounded generally by thick underbrush. At Yuma, the back waters of the river in the summer leave large lagoons, which to some extent remain the year round and bound the town closely on one side. It is, in fact, about one-half surrounded by water. The fort, situated on a high granite knob, about one hundred and fifty feet above the river, is, for a considerable part of the year, surrounded by water, running and stagnant. The town is built in the former bed of the Gila, and water can be procured but a short distance below the surface, and many wells are sunk for this purpose. During the overflows, water is frequently backed up in the streets, and great ponds stagnate for months at the doors of the houses. During nearly four years I was in active practice in the town, and now in looking carefully over my visiting list, and from remembrance, I can recall few, if any, cases which could positively be attributed to marsh miasm, originating at that place. It was certainly markedly absent compared with other stations I have served at of late years, unless certain prevalent nervous symptoms could be rightly referred to that cause. These, consisting of neuralgias, principally facial, it is the fashion in Arizona to attribute to malaria, but as it has generally been met with in my experience in persons addicted to the use of spirits, I have not been convinced of the truth of this theory.

"Probably no region can surpass the Colorado Desert in the characteristics of heat and dryness. Water has been procured only at a great depth by artesian boring, and water for the locomotives is carried from the Colorado. The rainfall is extremely light, and vegetation to a great extent, absent. The population is naturally very light, being confined almost to the employees of the railroad, but for a year or more a placer discovery caused quite a large population to locate upon the desert. The sick from this settlement naturally came to Yuma, and I have the remembrance that it was a markedly healthy community, so far as endemic disease was concerned.

"The experience here related, in its bearing on the theory of 'no water, no malaria,' seems conflicting. Certainly, Yuma possesses, in an exaggerated degree, all the factors which we suppose favorable for the development of swamp poison, and I can only account for the non-existence of malarial disease by the theory that, while marsh miasm exists there, as under similar conditions at other places, the exceptionally dry air has no carrying power, and that the human system is virtually insulated by it.

"I incline to the opinion that water is essential to the production of malaria, but that heat, water, and decomposing vegetation may all be present without the development of miasmatic disease I believe possible." . . .

We remark, in conclusion, that this possibility cannot be denied, and that it is even supported by observed facts. But as there is, in all probability, another essential element in the equation, an unknown biological factor, we need not be surprised at these apparent exceptions. And we cannot expect to explain all of the phenomena relating to the evolution of the malarial poison until we have obtained some definite information as to the *kind* of vegetable decomposition upon which it depends, and as regards the life-history and conditions of development of the living ferment, or ferments, which are concerned in this decomposition, the physiological changes which these micro-organisms may undergo in Nature's laboratory from changes in their environment, and the enemies with which they have to contend in the struggle for existence, etc.

THE DANGERS OF AN UNSKILFUL OR CARELESS APPLICATION OF HEAT AND COLD TO THE SPINE.

By B. O. KINNEAR, M.D.,

BOSTON, MASS.

In the articles which I have already published in the *Boston Medical and Surgical Journal*, August, 1882, and May, 1883, I have endeavored to demonstrate the power of Dr. John Chapman's method by the results obtained, as well as by an explanation of the manner in which the heat or cold acts upon the centres controlling the diseased parts, thus altering the action from an abnormal to a healthy one. My object in this paper will be to show as clearly as possible, by means of a series of cases, the varied application of ice required in different subjects suffering from the same disease, and the impossibility of successfully treating the patients in any other manner than in the way described. I will quote briefly from Dr. Chapman's works, and then proceed to apply the cases to the subject, first giving an account of them and their treatment; why the application acted curatively; and next, that the remedy used over any other spinal sections would have been unsuccessful, or even have produced disastrous results. In his work "On Cholera," page 186, he says: "The remedial efficacy of the ice is greatly dependent upon the care and correctness with which it is applied!" On page 304, work "On Neuralgia," he speaks very emphatically, saying, "The solution of the problem—how to secure all the *good*, and to avoid all the *evil* which may arise from the use of heat and cold applied to the spine—is far more difficult than it may at first sight appear. It necessitates a *thorough*[1] knowledge of each of the chief elements of the subject, experience in using that knowledge, circumspection, reflection, and the practice of a sort of strategic skill in the achievement of objects by indirect or circuitous paths, when attempts to accomplish the same purposes *directly* would probably be attended with failure, and even with danger. Gentlemen who, on *à priori* grounds, deny the possibility of producing untoward results by the application of the spinal ice-bag, will consult their own reputation and the welfare of their patients by refusing to permit themselves to be so far misled by their *seemingly* scientific, but really prejudiced, skepticism, as recklessly to apply ice along the spine, confident that, at any rate, 'it can do no *harm*, even if it can do no *good*!'" These quotations do not express, by any means, all that Dr. Chapman uses to delineate the necessity for caution

[1] The italics are mine.

and understanding of the fundamental principles of his system, but are sufficient to make clear to any careful physician how much can *only* be obtained by careful study of the method, with a correct diagnosis appended thereto. I have treated three cases of eczema rubrum successfully by the use of the ice, applied differently in every case.

CASE I.—In November, 1882, a Boston resident consulted me. He was a man of great height and large frame, twenty-seven years old, and was covered from head to foot with the eczematous eruption; suffering with the most intense itching and burning over the whole surface, so that, as he expressed himself, "If it continued much longer he would become insane." The discharge from the buttocks and flexures of the thighs and scrotum, in all of which parts the dermis was much thickened, was so great that he required constant supplies of old linen beneath him in bed, to prevent a soaking of the mattress. The dermis of the palms of the hands and the soles of the feet were also much thickened, and very tender to the touch.

His history was that of a man who, for several previous years, had overworked both body and brain. Fifteen months before consulting me, he had taken a very long and exhausting ride upon horseback, in California, and was attacked immediately afterward by eczema upon the buttocks. This attack proved transient and entirely disappeared. A few weeks after he was again afflicted, with an extension of the eruption over other parts of the body, and from that time until I was consulted he had never been entirely free from the disease. Any over-exertion, either mental or physical, great changes in the temperature, travelling in trains, etc., produced a fresh eruption, with the consequent suffering. He had tried every method of treatment without permanent benefit, and was almost in despair of any help. He had no disease of any internal organ whatever, all the functions being performed normally. His brain was hyperæmic, as shown by more or less sleeplessness, during *three* years previous to beginning the ice treatment. When I saw him he had been suffering for a week with a fresh outbreak over the whole body, including those parts which were chronically affected, and begged me, if I could, to stop the itching and burning. I filled a long Chapman bag sufficiently full to cover the last six dorsal and five lumbar vertebræ and applied it. I did not use ice over the cervical and upper dorsal region, for the head was hot and congested, and the ice placed over the sympathetic centres in this region would have further added to this abnormal condition, and perhaps have caused fatal coma after a few hours. The result, after twenty minutes of the application over the dorso-lumbar region, was astonishing. "The itching and burning, which had been almost unbearable, ceased over the *whole body!*" and the patient became quite drowsy at the same time. He slept through the night, wakening about every two hours to refill his ice-bag, as the itching and burning were renewed every time the ice melted. During the first five days and nights, ice was constantly used over the dorso-lumbar region, for no ill result followed its continuous application, but rather a return of the irritation of the skin immediately the cold was removed from the spine. By that time, however, fresh eczematous vesicles had ceased to appear, and I thought it better to see if the same result, viz., a gradual improvement, would not be sustained by a lessened use of the remedy. The patient had had much sleep, and his general nervousness was greatly calmed. On the sixth day, in the afternoon, I removed the ice for a couple of hours.

The patient's head became hot at once, with some throbbing of the temporal arteries, accompanied by stupidity of thought like that of a person suffering from a somewhat sluggishly congested brain—a state of partial coma. The symptoms were not sufficient to cause me great anxiety, yet I could not quite explain them, so was somewhat disquieted during the night that followed as to the successful result of the treatment. During the twenty-four hours succeeding, ice was used sixteen hours, and in the afternoon of the seventh day the patient remained in the same condition as above. It suddenly occurred to me that the brain having been sufficiently hyperæmic when I began the treatment to prevent use of the ice over the cilio-spinal region, it had again become hyperæmic from a cessation of the *constant* application over the dorso-lumbar region, thus allowing the arterioles in the brain to redilate; by withdrawing suddenly the dilating power over the arterioles of the lower body, through the action of the ice upon the sympathetic centres of this region. Acting upon the suggestion, I filled a lumbar bag of Dr. Chapman's half full of hot water, at a temperature of 120° F., placing it over the cilio-spinal region, and to my great satisfaction in an hour all hyperæmia of the brain vanished, while the patient became quit erational, with a cool, moist skin. During this evening he fell into a refreshing sleep, which continued with waking intervals for twenty-four hours. From this time he steadily improved, gaining greatly in weight, with a large appetite, good nights' rest, and a quiet nervous system, which he had not known for three years previous. The duration of the application of the ice was steadily decreased, and as the tendency to hyperæmia of the brain disappeared, it was applied in the full-length bag, from the fourth cervical to the last lumbar vertebrae, to control the disease upon the head and upper extremities. Much suffering was experienced from the third until the fifth week of treatment from occipital neuralgia, which gradually disappeared under the use of the full-length bag.

At the end of six weeks the patient's body was entirely free from the disease, with the exception of a few small round patches, and he was feeling better than he had for years.

Being a man in active business, and having many business troubles, during the next three months he had several relapses, which were, however, subdued much more readily than at first by the same remedy, each relapse covering less of the body than before, until the last occupied only a small place upon the buttocks, not inconveniencing him greatly. This was in May, 1883, since which time he has been in California, working steadily, and has had no return of the trouble while there. On journeying East again this September, the disease made a reappearance in a slight form. The ice is used every second day, and prevents its further progress.

November 22.—The patient is now quite well. Taking into consideration the length of time that he had suffered before using spinal ice treatment, the amount of suffering he had borne from the disease itself—the general physical prostration produced thereby—the fact that while under treatment great mental anxiety was endured, and that the patient, since the skin trouble was subdued, has, against my judgment, continued mental and physical labor to as great a degree as formerly, the result is a remarkable one, and I feel well assured that, unless some unusual mental or physical nervous shock is undergone, he will not be troubled in future.

In deciding to use ice in eczema, I argued upon the principle advocated by Dr. Chapman, that there are trophic nerves supplying each cell composing the dermis, regulating the amount of nutrition to that cell from the arterioles, and at the same time regulating selection from the blood of proper material to nourish the cell. When the centres controlling the skin-cells are unduly excited, that is, *congested*, according to Dr. Chapman's views, not only is the "selective affinity" of these cells abnormally increased in eczema, creating hypertrophy of the skin itself, but there is excreted from the arterioles so large a quantity of serum that the vesicular elevation of the epidermis takes place, forming the characteristic eruption. Acting upon the hypothesis here expressed, I decided that cold over the congested centres would relieve them of their excess of blood, and prevent abnormal nervous

force to the skin-cell due to the activity of the centres, and would further act by giving rest to the long-congested vessels of the centres, allowing them to recover their contractility, so that mental or physical shocks would no longer be able to reproduce the disease. The cases reported speak favorably for the truth of this hypothesis, though treated by ice over different sections of the spine. Now in this case, had the ice been used at first over the cilio-spinal region, before the hyperæmia of the brain had been quite overcome, the result would have been such intense congestion of that organ as either to alarm the physician so much as to cause a cessation of the treatment, or even to produce a coma so severe as to result fatally. A physician who had glanced over Dr. Chapman's system without study, retaining only in remembrance that it meant "ice to the spine," might very naturally have made this mistake, and either have pronounced it a failure or else have considered the treatment so dangerous as to be useless as a successful medical agent; damning the system, and not his own ignorance or carelessness.

Case II.—This was the first treated, in August, 1881. The condition of the patient when first seen was: General anæmic appearance, with a pale face and lips, anxious expression, poor appetite, shortness of breath upon exertion, prostration every day after work, sleeps, but never wakes refreshed, bowels regular, some nasal catarrh. The case showed a deficiency of nourishment in the brain and whole upper extremity, arising from a contracted state of the terminal arterioles, and at the same time a sufficiently powerful congestion of trophic centres supplying the hands and wrists to excite an excessive withdrawal of serum from the partially contracted blood-vessels, to produce the eczema; or it may be said, this excessive effusion of serum from blood-vessels, which although contracted generally in the brain and thoracic and brachial regions, yet, owing to the excitement of trophic nerves in the parts covered by the eczema, were in these parts kept dilated by this excitement.

Ice, covering the cilio-spinal region of Chapman, was thus indicated, to dilate the arteriole circulation through the encephalon, thorax, and brachial regions, to supply thereby a more complete nourishment to the anæmic parts, and at the same time act as a sedative to the congested trophic *spinal* centres, lessening the excitement of their terminal nerves in the dermis of the hands and the wrists, and preventing a continuation of the abnormal dermic cell activity. Ice was used three hours per day, two weeks, and for one and a half hours during the four weeks following, when the patient reported herself well, not only of her eczema, but all the general anæmic symptoms had vanished. Her face was quite full-colored, she had gained in weight, the appetite was excellent, she slept soundly, and awaked refreshed to do her work easily. She had one or two slight relapses in the half-year following, but for the past eighteen months has remained well! Ice *might* have been used the full length of the spine, but there was nothing in the condition of the bowels or lower extremities to indicate such necessity. It would not be more efficient than covering the region acted upon; and so applied, have possibly resulted in injury. A tonic consisting of tinct. ferri chloridi and quiniæ sulph. was given for several weeks, in addition to the neuro-dynamic treatment.

Case III.—Was a young married lady from Prince Edward Island. When examined she presented the following symptoms and appearance, viz.: Hot flushes frequently of face and arms; always had cold feet in winter; in heated rooms or hot weather suffers from a suffocating feeling; the complexion is muddy, the conjunctivæ slightly injected; has a severe attack of eczema upon the hands, with some tender and large cracks in the thickened dermis. Ice was used over the cilio-spinal region one hour per day for a week, with the unpleasant result after each application of an attack of nasal catarrh, a sense of chilliness over the whole upper body, with quite distressed sensations in the head and chest, while the eczema was not relieved. I then arrived at the conclusion that there was a partial paralysis of the vaso-motors controlling the head, thorax, and arms, and that the eczema originally proceeded from this congested condition of the circulation; therefore, the ice over the sympathetic ganglia of the cilio-spinal region would only add acuteness to the disease. I now used heat, water at about 120° Fahr. over the cilio-spinal region, with this effect in half an hour, viz., a pale face, with the hands and forearms quite cold to the touch. This treatment was used one and a half hours per day for a week, with a relief to the generally dilated state of the arterioles of the upper body, but an increased activity of the eczema, due to the heat applied over the already congested spinal trophic centres in the neck, exciting them to send stronger nervous currents to the terminal nerves in the hands, and so keeping the blood-vessels dilated in the diseased part. The action of the heat over the vaso-motor centres, contracting the general circulation in the upper body, was not strong enough to contract the vessels in the skin, where the dermic cells were very greatly excited. This patient was staying in New Hampshire. I advised her to come to the city, as I felt sure that I could relieve her case. She decided to come, and the treatment was successfully continued. Ice was applied three hours per day, in a lumbar bag over the dorso-lumbar region. This dilated the blood-vessels in the pelvic body and lower extremities, thus driving the *excess* of blood from the head, thorax, and arms. Then a narrow bag, only wide enough to cover the spinal cord, and filled with ice, was placed over the cord in the cilio-spinal region, to relieve or restrain the excessive congestion of the trophic centres controlling the hands. The bag was used for four weeks, several hours per day, afterward for a shorter period. The patient's eczema began to improve at once, while the face became clear, with almost a *fresh* complexion. The conjunctivæ were no longer injected, the hot flushes ceased, the appetite improved, and the distressing sensations caused by hot weather, in the the head and thorax, were entirely relieved. In six weeks the patient had almost recovered, and left the city in July, 1883. Since that time she has remained quite well. This case illustrated fully how much thought is required in applying the treatment, and is as forcible an argument as can be used against a careless or ignorant application of the system.

Case IV.—A lady from New Orleans, who was recommended to come to me by Dr. Francis B. Greenough, July 14, 1883. She presented the following symptoms: Very severe neuralgia of the left lower jaw, which has now lasted three weeks. The pain is continuous, but worse at night, and she is unable to obtain sleep unless one-half a grain of morphia is administered each night. Has had "dumb chills" during the past year, suffers from frequent "hot flushes" in the head, which is very hot when the neuralgia is most severe. Hands and feet cold most of the time; often has cramps in and jerkings of the legs at night. The face is covered with a dark red and scaly eruption. Eyes heavy, with a muddy looking sclerotic; suffers from blurring on vision; is constipated, and was so before using so much morphia; appetite poor, and has lost largely in weight. There was no organic disease that I could determine, and my diagnosis was general hyperæmia of upper body, anæmia of the trunk and legs; or, in other words, there was excitement or congestion of the vasomotor and motor centres in the dorso-lumbar region, with a paralysis of vasomotors in the neck, thus allowing the head to be constantly hyperæmic.

Dr. Chapman's system intimated as treatment the application of ice over the congested dorso-lumbar centres, to be used for several hours each day, as the case was chronic, in order, by dilating the blood-vessels in the lower extremity, to restore a normal circulation therein, and at the same time relieve the hyperæmia of the head and brain, which was the cause of the pain and sleeplessness.

At noon of the 15th ice was applied over the dorso-lumbar region, for twelve hours between that time and noon of the 16th, with a resulting night's rest without morphia, and only a *few* paroxysms of pain. These spasmodic attacks were relieved through the day following by heat to the cilio-spinal region, and the ice continued as before. This patient had a cavity in one of the molars, directly over the chief seat of the pain. It was filled at once, and she left the city for the night, requiring one-fourth grain of the morphia to produce sleep and entirely ease the pain. From this time forward her progress was one continuous gain. The sleep became refreshing, and at the end of four days the pain had entirely ceased; in two weeks the rash had become much lighter upon the face, the eyes bright, with a clear sclerotic, the head was no longer hot, jerkings of the limbs at night ceased, the appetite was good, the bowels more regular in action, and a good deal of exercise could be taken without exhaustion. At the end of eight weeks, the use of the ice having been steadily lessened, she was pronounced almost well, and left the city on her way to the South. Treatment to be continued for several weeks, one and a half hour every other night. If the ice had been used in this case over the cilio-spinal region the result would have been to increase the pain, the congestion of the head, the sleeplessness, and perhaps have caused a fatal coma; but in any case the treatment would have been unsuccessful, and the system have appeared *absurd* to both physician and patient.

The relief was effected by the action of the ice over the congested, and thus overacting or excited, dorso-lumbar vasomotor centres; driving from them the *excess* of blood, and subduing their excitement so that the blood-vessels in the abdomen dilated normally, thereby nourishing the weakened bowel muscles, and procuring a cessation of the constipation by a re-establishment of their peristaltic action; and by supplying the legs with their normal amount of blood, relieving the head and brain of their *excess*, which was the cause of the troubles in that region. Of course the feet became permanently warm. This lady gained eighteen pounds in weight during the eight weeks under my observation. There is no rule in Dr. Chapman's system by which the length of time of ice application may be certified to in cases of the same disease in different persons. In an individual of strong muscular and nervous organization, without organic disease of any of the viscera, with chronic functional troubles, the treatment is beneficial, or rather curative, only by its application at *first* many hours per day, to prevent severe reaction in the intervals between the applications. It may be easily understood that ice applied in chronic cases, for *short* intervals at first, will only give rise upon its removal to a greater congestion of vasomotor centres, and a *firmer* contraction of the arterioles under their control. In all cases the history of the life and family must be thoroughly investigated, while, as Dr. Chapman says, in those cases which seem, upon a first examination, unfit for neuro-dynamic treatment, a physician who has thoroughly studied and apprehended the method may, by a sort of strategic skill, assist the patient and conquer the disease.

Is congestion of the trophic skin-*centres* the cause of eczema? From the results of the treatment, although the cases are few, it seems to me probable, and I shall continue such treatment in preference to local applications, both on account of the rapid relief given to the itching and burning felt by the patient, its permanently curative action, if continued sufficiently long, and because of the cleanliness of the method.

THE AMMONIAPHONE.—Dr. Carter Moffat has invented an apparatus called the ammoniaphone, for producing an "artificial Italian atmosphere," that has a remarkable tonic effect upon the voice. The apparatus contains an absorbent material impregnated with peroxide of hydrogen, ammonia, and some other ingredients, and through this, air is drawn into the lungs.

TREATMENT OF WRY-NECK BY SULPHATE OF ATROPIA.[1]

BY W. M. LESZYNSKY, M.D.,

PHYSICIAN TO THE CLASS FOR NERVOUS DISEASES IN THE DEMILT DISPENSARY; ASSISTANT TO THE CHAIR FOR MENTAL AND NERVOUS DISEASES IN THE NEW YORK POST-GRADUATE MEDICAL SCHOOL AND HOSPITAL, ETC.

ON December 6, 1883, Mary K—— was presented at my clinic in the Demilt Dispensary, accompanied by an attendant, as she was unable to walk about without assistance. The following history was elicited from the patient and her friends: She was born in the United States, is twenty-one years of age, and unmarried. Her parents are healthy. Her uncle, it is said, had paraplegia, but recovered. Family history otherwise good. She is of a "nervous" disposition and has always been subject to constipation and headache. Menstrual function regular. A few years ago she had rheumatic pains in her feet and occasional redness and swelling of great toe. Her occupation during the last two years has been that of a book-folder in the Bible House. In performing the duties of her position she was obliged to keep her head turned toward the left side while comparing the foldings with a gauge, which required almost continuous concentration of attention.

About two months ago, she first noticed that her head was inclined to turn to the left, when she was not engaged at her usual employment. Nothing was thought of this at the time. Two weeks subsequently spasmodic action of right side of neck and shoulder manifested itself. The spasm developed gradually, increasing in intensity, and has now reached a condition of such severity as to occasion great inconvenience and suffering. Her entrance to the room was effected in a very precipitate manner, as she stumbled and struck her head against the door. This awkwardness was due to the fact that her head was markedly rotated, with the chin resting upon the left shoulder, thereby interfering with the usual method of seeing where she was going, and producing inco-ordination.

The *right* sterno-cleido-mastoid muscle was hypertrophied to about three times its normal dimensions, and was undergoing continual spasmodic action both clonic and tonic in character, the clonic convulsions being so frequent as to keep the muscle almost in a permanent state of tonic contraction. The head was forcibly jerked to the left and downward at the rate of about fifty times per minute, with an occasional intermission of a few moments, when the muscle would assume tonic spasm. With great difficulty I succeeded in forcibly drawing the head to the opposite (right) side, but when pressure was removed it would immediately spring back to its accustomed abnormal position. The clavicular portion of the right trapezius muscle was also affected with clonic spasm, causing the right shoulder to jerk simultaneously with the head. The convulsive movements continue at night, and are attended with so much pain in the neck, occiput, and shoulder that she has been unable to sleep during the last four days.

The *left* sterno-mastoid muscle can barely be outlined, and is apparently atrophied from disuse. I decided upon the following plan of treatment: One daily injection of a solution of sulphate of atropia (℥v. = gr. $\frac{1}{80}$) into the substance of contracted muscle, commencing with one-eightieth of a grain, and increasing the dose daily until relaxation takes place; in conjunction with the daily application of galvanism to convulsed muscle, and faradization to left sterno-mastoid. To alleviate her suffering and produce sleep, she is to have chloral hydrate, gr. xv., with ext. conium fl., ℥ x., at night before retiring; pil. rhei co. No. iij. to relieve constipation.

December 7th.—Slept well last night. Bowels acted freely this morning. Injected ℥ vii. of atropia solution. Galvanism, faradization; chloral and conium at night.

December 8th.—Slept well. Atrop., ℥ ix.; galvan-

[1] Read before the New York Neurological Society, March 4, 1884.

ism, faradization; chloral and conium at night. Empl. cantharides, 3 × 3, one blister to be applied in neighborhood of exit of spinal accessory nerve and another over the seat of spasm.

December 9th.—Atrop., ♏ x.; galvanism, faradization; chloral and conium at night.

December 10th.—Atrop., ♏ xj.; galvanism, faradization; Turkish bath; chloral and conium at night.

December 11th.—Pain is not quite so severe. Atrop., ♏ xj.; galvanism, faradization; chloral and conium at night.

December 12th.—Atrop., ♏ xiij.; galvanism, faradization; chloral and conium at night.

December 13th.—No improvement. Atrop., ♏ xv.; galvanism, faradization; chloral and conium at night. Bowels again constipated; to have pil. rhei co. No. ij. every night. Bromide of sodium 15 grains t.i.d.

December 14th.—Sleeps well, the clonic spasm ceasing, and the tonic contraction remaining permanent during the night. No other improvement perceptible. Atropia solution, ♏ xvi.; galvanism, faradization; sod. brom., gr. xv. t.i.d. To have lupulin, camphor, āā. gr. v., in capsule at night instead of chloral and conium.

December 15th.—Has menorrhagia, with hysterical "fainting spells," but says she is feeling easier. Atrop., ♏ xvij.; galvanism, faradization; sod. brom., gr. xv. t.i.d.; lupulin and camphor at night. Discontinue use of pil. rhei co. To have laxative enema daily.

December 16th.—Atrop., ♏ xvij.; galvanism, faradization; sod. brom., gr. xv. t.i.d.; lupulin and camphor at night.

December 17th.—Atrop., ♏ xvij.; galvanism, faradization; sod. brom., gr. xv. t.i.d.; lupulin and camphor at night.

December 18th.—Atrop., ♏ xviij.; galvanism, faradization; sod. brom. increased to 20 grains t.i.d.; lupulin and camphor at night.

December 19th.—Atrop., ♏ xviij.; galvanism, faradization; sod. brom., gr. xx. t.i.d.; lupulin and camphor at night.

December 20th.—Atrop., ♏ xviij.; galvanism, faradization; sod. brom., gr. xx. t.i.d. Use of lupulin and camphor to be discontinued, as she sleeps well.

December 21st.—Atrop., ♏ xviij.; galvanism, faradization; sod. brom., gr. xx. t.i.d.

December 22d.—Atrop., ♏ xix.; galvanism, faradization; sod. brom., gr. xx. t.i.d.

December 23d.—No improvement noticeable. Atropia, ♏ xx. (gr. $\frac{1}{50}$); galvanism, faradization; sod. brom., gr. xx. t.i.d.

December 24th.—Atropia solution was prepared in a more concentrated strength (♏ v. = gr. $\frac{1}{75}$), and ♏ ix. was injected; galvanism, faradization; sod. brom., gr. xx. t.i.d.

December 25th.—Atropia solution, ♏ xj.; galvanism, faradization; sod. brom., gr. xx. t.i.d.

December 26th.—All of the physiological effects of atropia have been produced, but not to a dangerous extent. At present she complains mostly of vertigo, with numbness over entire surface of body; loss of power in extremities; confused appearance of objects and hallucinations of sight and hearing. She frequently holds conversation with imaginary persons. These symptoms, which commenced about a week ago, beginning with extreme dryness of the mouth and fauces, and great difficulty in swallowing, become manifest about one hour after injection, and continue with varying intensity from three to four hours. She will sit or lie down in a listless manner the greater part of the day, and will make no voluntary effort to exert herself. She has to be dressed, undressed, and fed like a child. She is so emotional as to cry upon the slightest provocation. She takes no interest in her surroundings; concentrates her entire attention upon herself and her deplorable condition; is very despondent, and apparently on the verge of melancholia.

The clonic character of spasm has markedly subsided, and the tonic contraction now seems to predominate. The *left* sterno-mastoid muscle is increasing in size and strength under the daily application of the faradic current.

When commanded to do so, she is able, without assistance, to rotate her head to the opposite (right) side, and retain it in the erect position for two or three minutes. She sleeps fairly well. Appetite good. Bowels regularly active. Atropia ♏ xij. (nearly the $\frac{1}{4}$ grain); galvanism, faradization; sod. brom., gr. xx. t.i.d.

December 27th.—Atrop., ♏ xij.; galvanism, faradization; sod. brom., gr. xx. t.i.d.

December 28th.—Atrop. ♏ xij.; galvanism, faradization. Troubled with flatulence. Sod. brom. increased to gr. xxv. t.i.d. combined with charcoal and pepsin.

December 29th.—Very much improved. She is rapidly gaining control over muscle. Atrop. ♏ xij.; galvanism, faradization; sod. brom., gr. xxv. t.i.d.

December 30th.—Atropia injection reduced to ♏ x.; galvanism, faradization; sod. brom., gr. xxv. t.i.d.

December 31st.—Still improving. Administration of atropia discontinued. Galvanism, faradization; sod. brom., gr. xxv. t.i.d.

January 1, 1884.—Galvanism, faradization; sod. brom., gr. xxv. t.i.d.

January 2d.—Nearly well. Galvanism, faradization. Use of bromide to be suspended. Ordered cod-liver oil with syr. hypophosphites co., 3 j., and Fowler's solution, 5 drops t.i.d.

January 4th.—She is able to take care of herself and walk with head erect and can rotate it sufficiently to permit of chin pointing over *right* shoulder. Her entire demeanor and disposition have changed; all manifestations of mental depression have disappeared and she is evidently happy. Occasionally her head is inclined to turn to the left. All evidence of clonic or tonic spasm has vanished.

It will be observed that the initial dose of atropia was one-eightieth of a grain, which was daily increased in amount until on the twentieth day she was receiving nearly one-sixth grain (the maximum dose), which was continued in the same quantity daily for four days, when recovery supervened.

It will also be noticed that no decided improvement was shown until the injection of nearly the one-sixth grain had been administered. All other treatment was deemed auxiliary to the atropia and I consider that recovery was due to the persistence in its use.

In looking over the literature, particularly in reference to the use of large doses of sulphate of atropia in conditions of muscular spasm, I find the following cases:

1. In a clinical lecture, delivered at the Pennsylvania Hospital, nearly sixteen years ago, on "Certain Forms of Muscular Rheumatism, particularly Wry-Neck, and its Treatment," by Prof. J. M. DaCosta, in directing the attention of the profession to the use of sulphate of atropia, he says: "The muscles affected were the sterno-cleido-mastoid of one side and the trapezius. . . . Frictions and the ordinary remedies were of no avail, and one-fiftieth of a grain of sulphate of atropia was directed to be injected just over or into the rigid parts, hoping thus to relax them. The hypodermic injection was administered on the 8th of March, and at once a decided amelioration was observed, the same quantity was made use of on the 9th, and on the 10th it was noted that the stiffness of the muscle was almost entirely gone. The remedy was repeated and on the 12th the neck was supple; all distortion had disappeared; the head could be moved in every direction freely and without pain." [1]

2. In a case of hysterical trismus of nine months' duration, in the practice of Dr. John C. Shaw, of Brooklyn, N. Y., recovery took place under treatment by hypo-

[1] Pennsylvania Hospital Reports, 1868, p. 391.

dermic injections of large doses of sulphate of atropia. "After injecting atropia for four days, during which time I gave one-fifth grain, the trismus, which had lasted nine months, ceased. The largest quantity I ever gave at one injection was one-sixth grain, and the largest quantity in one day one-fourth grain. Undoubtedly these are large doses; but I used this remedy as I would opium in peritonitis, with no regard to any arbitrary dosage laid down in books, but until I got the effect. It will be observed that I carried my doses up gradually, watching my patient closely."[1] In this case active delirium was produced after one-twentieth grain had been administered. Dr. Shaw has lately informed me that this patient has ever since remained free from trismus, etc., has married and had one or two children.

3. In a patient with hysterical wry-neck, treated by Hammond, by atropia subcutaneously, he commenced with one-fiftieth grain and gradually increased it to over one-thirtieth grain. In reporting the case he writes: "I continued to increase the quantity gradually daily, till on the 10th there was a slight amelioration perceptible. She was then getting one-thirtieth of a grain. Amendment from this time was steady under more gradual augmentations of the doses, and on the 22d day the distortion was gone and the muscle was fully relaxed. Treatment was then suspended, and the patient has remained well to this day, though still strongly hysterical."[2]

4. Patient of D. H. Cullamore, F.R.C.S., etc. "A case of tetanus cured by hypodermic injection of sulphate of atropia, one-fortieth grain every four hours for six consecutive days. Its administration was not followed by any of the easily recognizable symptoms of the drug."[3]

5. Case of Mr. James Adams, of London, "tetanus cured where one-third grain of sulphate of atropia had been injected in divided doses within twenty-four hours."[4]

In all of the above cited cases (excepting Case 3) the patient was in a hospital and under constant observation. Had either of them been an out-door patient like my own, or one who could have been seen but once a day, it would not only have been impracticable, but extremely hazardous to use such enormous doses. It seems to me, that in office patients the safest plan is to carry the dose up gradually, at the same time carefully noting its effects. In the case of my patient, I did not permit her to leave for nearly a half hour after the administration of the drug. I will venture to state, in view of the favorable result obtained with such carefully graduated doses, extending over a period of twenty-four days, that, had the patient been in circumstances which would have insured close attention, she might have recovered in a shorter time under more rapid augmentation in the quantity of atropia administered.

It has not been an infrequent occurrence to hear of cases of opium poisoning treated by large doses of atropia subcutaneously, but in the present paper reference to these histories is intentionally avoided.

My object in presenting this contribution is not only for the purpose of recording a successful result from treatment in one of a class of cases upon which all authors agree in stating that the prognosis is unfavorable, but also to bring forward additional evidence showing that larger doses of sulphate of atropia may be safely given by the hypodermic method than is generally advised by many eminent authorities on therapeutics.

446 Lexington Avenue, New York,
March 4, 1884.

Ergot in Chorea is recommended by Mr. J. K. Forrest, of York, England (*Lancet*). He gives it in five-minim doses of the fluid extract, but combines it with arsenic and cod-liver oil.

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[1] Transactions American Neurological Association, vol. ii., 1877, p. 159.
[2] Journal of Nervous and Mental Diseases, vol. iv., 1877, p. 58.
[3] London Lancet, vol. ii., 1879, p. 42.
[4] Ibid., p. 543.

PARTIAL DISLOCATION OF THE OCCIPITO-ATLOID ARTICULATION — REDUCTION — RECOVERY.

By P. C. COLE, M.D.,

New York.

On the morning of June 21, 1883, I was called to see Miss L. M——, aged twenty-four years.

I found her sitting up in bed, with an anxious expression of countenance, suffering intense pain, her face turned toward the right shoulder and the chin depressed toward the clavicle.

I was informed that being in the habit of retiring late, it was customary to place her letters on the foot of the bed that she might read them before rising.

Half waking from a disturbing dream, turning her head suddenly to see if there was a letter from her sister, then absent in Europe, she felt something give way, heard a snap, and found she could not move her head. She had been lying on her stomach.

She summoned assistance, and her relatives, supposing it was "a crick in the neck" had exhausted the domestic remedies of rubbing, lotions, etc., before my arrival, which was one hour after the accident.

On attempting to restore the head to its normal position I found it impossible to do so, although there was apparently no spasmodic action of the muscles to prevent it. I now counted the pulse, found it 44, and at once recognized the gravity of the case.

I should have been very glad to have had counsel, but fearing the possible results of delay, determined to assume the responsibility of attempting reduction without professional assistance.

On careful examination I thought I detected slight malposition of the vertebra. The patient still sitting up in bed, I clasped the head firmly with both hands, and without attempting to change its position, made slow and steady extension until the body was raised so that her heels only rested on the bed. Holding her thus suspended for a short time, I found, to my inexpressible relief, that I was able to return the head to its normal position without difficulty. Laying her carefully down, and retaining the head in position with pillows, I again counted the pulse, and found it had risen to 72. The intense pain had ceased while suspended, and she suffered only from a dull aching sensation. I now informed her of the great danger she had incurred, and enjoined absolute rest.

During the afternoon her pulse commenced to fall, and by evening it was again 44. For the next three days the patient suffered but little pain, the pulse remaining steadily at 44; fifth day, 65; sixth day, 72. For the next few days moving her in the bed, although done with the utmost care, and never by any one but myself, would temporarily send the pulse down to 44.

July 4th.—In moving her the head was slightly jarred, causing intense pain, fall of pulse, and alarming symptoms of syncope. Brandy was given, and in the course of an hour she had recovered from all unpleasant symptoms.

Dull pain had been felt from the time of the accident, and a slight extension applied to the head gave relief. I had an instrument made to rest on the shoulders, back, and chest, supporting and making slight extension to the head by means of a steel spring, which admitted of a nodding but not of a lateral motion. This gave great relief and was worn day and night.

After the second week Miss M—— was able to sit up; from this time on her improvement was steady. She went to the seaside, and on her return, some two months after the accident, was able to dispense with the use of the instrument. She still felt a little pain if she made a sudden movement, and was obliged to be careful.

During her illness the temperature varied but slightly from normal. No medicine except mild saline cathartics were used.

At the present time, nearly seven months after the accident, she is in perfect health.

I am well aware of the difficulty of diagnosis in injuries affecting this region. Subluxation of the occipito-atloid might be mistaken for that of the atlo-axoid, a much more common accident. In this case, however, I feel sure of my diagnosis. The pain and tenderness, which persisted for weeks, were principally confined to the left side, about the interspace between the sterno-cleido-mastoid and trapezius. No pain was experienced in the fore part of the neck, as would have been the case if the odontoid ligament had been ruptured. Lateral motion of the head caused pain long after the nodding motion ceased to cause any inconvenience.

The literature of the subject is very scant. Gross, in his "System of Surgery," refers to it in these words:

"A few cases of traumatic luxation of the occipito-atloid articulation have been reported; but, so far as I know, all, except one, and that was only a partial displacement, promptly proved fatal. The accident, until recently, was regarded by most writers as impossible, on account of the firm connections and restricted motions between the two bones."

254 West Forty-Second Street.

Reports of Hospitals.

BELLEVUE HOSPITAL, NEW YORK.

Reported By FRASER C. FULLER, M.D.,

late house surgeon, bellevue hospital.

FRACTURE OF PELVIS—LACERATION OF URETHRA—PERINEAL SECTION—RECOVERY.

Bernard D——, aged forty-one, boat-builder, entered Ward 10, Bellevue Hospital, August 18, 1883, during the visiting service of Dr. Charles McBurney. About eight hours before, while assisting to hoist a boat into the loft of a building, the hoisting apparatus gave way and the boat fell upon him, crushing him to the ground, the greater part of the force being exerted upon his pelvis laterally, *i.e.*, through the acetabula. He had endeavored to walk, but found it impossible, was carried to his home and later transferred to the Hospital. At the time of entrance he was very weak, pale in countenance, and very thirsty, and to relieve his thirst he had been drinking freely of ice-water and beer. Examination about the pelvis showed a bloody discharge from the urethra, ecchymosis of the perineum, which was increasing in extent, and great tenderness in the rami of the pubes and ischia, particularly of the left side. An attempt had been made before he entered the hospital to catheterize the bladder, but with negative results. Similar endeavors in the ward were also unsuccessful, the instrument suddenly jumping from the urethra laterally into extra-urethral tissue.

Dr. McBurney being away from the city, a consultation of the house staff was held, and it was decided that perineal section was necessary. The man was so weak that I almost feared to operate, but decided to risk the operation at that time in order to prevent extravasation of urine. Up to that time I think that no extravasation had occurred, although the bladder was very full.

A staff was passed into the urethra and its point carried down to the seat of laceration and held in the median line. This served for a guide in the operation. A moderately large incision was made and the urethra soon reached. The laceration was in the membranous urethra, especially its anterior portion. At this time a large amount of extravasated blood escaped from the wound, but no urine. With some little difficulty the proximal end of the lacerated urethra was found and a silver female catheter was passed into the bladder, from which flowed a large amount of clear urine. The finger passed into the wound and carried to the right was able to plainly feel the fractured bone, the ramus of the pubes and ischium of the left side, and distinguish the overlapping and deformity that existed. The separation between the ends of the lacerated urethra was nearly an inch, it being torn completely across.

The silver catheter was tied into the bladder, the wound loosely packed with iodoform gauze, and the patient put to bed. He appeared stronger after the operation than before it, and gradually rallied to a fair condition. The fracture of the bones was not treated, no attempt being made to immobilize or fix the pelvis.

On the third day the silver catheter was removed and replaced by a soft one. The perineum and scrotum were now inky black from the old extravasation.

August 26th, eight days after the operation, the wound began to suppurate, and the patient developed a slight cystitis. He was placed on a water-bed, which was a great relief to him. The catheter was removed from the bladder, and his bladder catheterized and washed out at regular intervals; suitable internal medication being employed, especially boracic acid.

September 15th.—An attempt was made to pass a sound through the entire urethra into the bladder. No effort had been made previous to this time, as it was not deemed advisable, considering the patient's condition. The attempt being made it was found impossible to enter the bladder, the instrument swerving from the urethra at the seat of the laceration. He continued to urinate by both the urethra and the fistula until October 10th, when I did an external urethrotomy and passed a No. 18 (English) sound into the bladder, the patient being under ether. Subsequent attempts at passing sounds without ether were attended with difficulty, the pubic arch seeming lower down than usual, producing a very sharp angle at the triangular ligament. This difficulty increased until October 27th, when Dr. McBurney performed an internal urethrotomy, also dividing a bridge of tissue in the membranous urethra through the perineal fistula. The patient has since made an uninterrupted recovery, and now takes a No. 19 English steel sound without difficulty, and his perineal wound is entirely closed. He is a well man, walking perfectly, his only failing being a slight stoop, which can be traced to his pelvis.

New York, January 8, 1884.

Time Required for Stomach Digestion.—E. Jessen has made some experiments on the time required for the digestion in the stomach of several articles of diet. The stomachs of the persons submitting to the experiment were emptied by the aid of a pump, and one hundred grammes of raw or cooked meat mixed with three hundred cubic centimetres of water were introduced. The experiment was considered ended when the stomach-pump could remove no particles which exhibited the microscopic appearances of muscular fibre. The results were as follows:

Raw and finely-cut beef	.....	2	hours.
Partially-boiled	"	"	.....	2½	"
Well-boiled	"	"	.....	3	"
Rare roast	"	"	.....	3	"
Well-roasted	"	"	.....	4	"
Raw mutton	.....	2	"
Raw veal	.....	2½	"
Raw pork	.....	3	"

The digestion of milk was examined in the same manner, a quantity of milk being used of which the percentage of nitrogen was equivalent to that of one hundred grammes of beef.

602	cubic centimetres	raw cow's milk	.....	3½	hours.
602	"	"	boiled	"	"	.....	4	"
602	"	"	sour	"	"	.....	3	"
675	"	"	skimmed cow's milk	....	3½	"
656	"	"	raw goat's milk	.....	3½	"

Progress of Medical Science.

LYMPHORRHŒA FROM THE NOSE IN LEUCOCYTHÆMIA.—Dr. Cornil relates the case of a patient suffering from leucocythæmia who had a discharge from the nose of a thick, transparent, glairy fluid. It flowed slowly but constantly, and was neither thin like the discharge of a commencing coryza, nor opaque like that of a more advanced nasal catarrh, but contained a large quantity of white corpuscles. The patient did not sneeze, nor were there any tickling sensations in the nose. At the autopsy the mucous membrane of the nasal fossæ was seen to be smooth, without ulceration, but thickened in places. The thickened parts presented a gray color on section. They were formed by an infiltration of the connective tissue with a mucous transparent fluid, like lymph. It was this leukæmic infiltration of the Schneiderian mucous membrane which was the cause of the nasal lymphorrhœa.—*Revue Médicale*, August 11, 1883.

ACUTE NECROSIS OF THE RIBS.—At a meeting of the Liverpool Medical Institution, Dr. J. Cameron showed a preparation of the ribs, and a post-mortem photograph by Mr. Paul, of the following unusual case. A Mexican sailor, aged nineteen, was admitted into the Southern Hospital in a condition of exhaustion, with pleurisy and pneumonia at the right base. He had a temperature of 102°, dyspnœa, and cough; he slept badly, and was very restless. The liver and spleen were enlarged, and somewhat tender. The gums were spongy, and mastication was painful; there were also pains in the legs, with some swelling about the knees, and a small sore over the left great toe. This sore was produced by his shoe, and had been the commencement of his illness two and a half months ago; he having been laid up on board his ship during this time with symptoms of low fever. A day or two after admission it was noticed that his ribs were in a peculiar movable condition; and since he did not refer any pain to the part, it was believed to be of old standing. In the hospital his febrile symptoms increased; he became delirious and semiconscious. The dyspnœa and restlessness increased, and in ten days he died. At the post-mortem examination, on reflecting the skin, the sternum with the costal cartilages at once fell back into the chest, the latter being all separated from their attachments with the ribs, except just at the upper part. The ribs, on the contrary, projected from the neighboring soft parts for three or four inches, the third to the ninth on the left side, and the fourth to the ninth on the right. Before removing the skin, each of these ribs had been surrounded by an abscess. No evidence of pyæmia was met with; but pleuropneumonia at the right base, and enlargement and congestion of the liver and spleen, were found. Dr. Cameron concluded that the patient had suffered from malarial fever, and that the periostitis and necrosis of the ribs were a sequela of this. He quoted Sir James Paget ("On the Occurrence of Necrosis, especially of the Ribs, after Typhoid, Roman, Neapolitan, or other Malarious Fevers") in support of his opinion.—*British Medical Journal*, December 15, 1883.

SALICYLIC ACID IN ECZEMA.—Lassar (*Monatshefte für praktische Dermatologie*) points out that salicylic acid is specially useful in eczema, and particularly when used as a two per cent. vaseline salve or vaseline zinc paste. In the common eczemas of the head in children, so numerous in dispensary practice, after two or three thorough cleansings, the daily application of the following salve nearly always suffices to obtain rapid and lasting results:—℞. Acid. salicylic., gr. x.; Tinct. benz., ♏ xx.; Vaseline, ʒ j.; M. Ft. ung. On other parts, where a soft salve which easily melts as this is not suitable, where a firm dressing or drying effect is desired, the following paste should be rubbed on:—℞. Acid. salicylic., gr. xx.; vaselini, ʒ j.; zinci oxidi, amyli, āā. ʒ ss.; M. Leniter terend., fiat pasta. So long as the secretion is abundant, the dressing should be daily renewed. Sometimes, when it dries hard, it tickles the skin; it should then be rendered soft by subsequent inunction with vaseline.

MULTIPLE DEGENERATIVE NEURITIS.—Dr. Strümpell relates the following case (*Centralbl. für die Med. Wiss.*, October 27, 1883). A drunkard who had for several years experienced pains in his arms and legs, had, within the last year, suffered also from weakness of the lower limbs, which had recently amounted almost to paralysis, extending also to his arms. He became confused both as to time and place. The sensibility of the arms was unaltered; in the lower limbs sensation was nearly obliterated. The reflex cutaneous phenomenon of the legs was feeble; tendon reflex was absent. The bladder and rectum retained their power. The optic disc was atrophied on both sides. Paralysis of the respiratory muscles and death occurred suddenly, three and a half months after the case came under notice. The anterior horns of the spinal cord, and the anterior roots of the nerves of the extremities, showed no macroscopic change, but the microscope showed atrophy of the nerve-fibres, with fatty degeneration of the muscles.

DIABETES INSIPIDUS FROM SYPHILIS.—Dr. Sidney Phillips, at a recent meeting of the Harveian Society of London, read the notes of a case of diabetes insipidus, due to syphilis. The patient, a man aged thirty-three, had, ten years previously, been treated for a chancre, followed by secondary symptoms; and had since, at various times, suffered from the effects of syphilis. When first seen by Dr. Phillips, he stated that he was passing very large quantities of urine, as much as ten quarts in a night; he complained also of severe pain, increased at night, in the right fronto-parietal region, with localized tenderness; the right pupil was irregular from old iritic adhesions, and he had a gumma, of the size of a marble, in the substance of the tongue. He was treated by iodide of potassium, in large and increasing doses, and in three weeks he had made rapid progress toward recovery. The headache had ceased; he was passing a little over three pints of urine in the twenty-four hours, and the gumma of the tongue had much diminished in size. Dr. Phillips remarked that, in this case, the increased flow of urine was due to syphilis; but whether it was due to the lesion on the cortex of the brain was not so clear. In all the recorded cases, where a growth had been found as the cause of the polyuria, it had been situated at the base of the brain. Trousseau, however, recorded a case of polyuria, following an attack of ordinary hemiplegia, where the lesion was presumably elsewhere than at the base; and possibly, in the present case, it was due to the node on the surface of the brain, which softened and diminished in size under the influence of the iodide, as the gumma of the tongue was simultaneously observed to do.—*British Medical Journal*, December 15, 1883.

CARDIAC PALPITATIONS.—M. Peter explains the occurrence of palpitation of the heart as being due to different circumstances affecting its innervation (*Gaz. Méd. de Paris*). Palpitation may be due either to excess or defect of innervation. Under the first head come those forms of palpitation that result from stimulation of the ganglionic cells of the myocardium, from stimulation of the great sympathetic, or from increased activity of the heart in endeavoring to overcome an obstacle (spasmodic palpitation). The second form of palpitations results from a diminution in the activity of the pneumogastrics, from fatigue, or from an alteration in the myocardium (paralytic palpitations). Side by side with this kind of physiological antithesis, in palpitations being due either to excess or to defect in innervation, a form of pathological antithesis is also observed in the occurrence of palpitations resulting from plethora as well as from anæmia.

THE MEDICINAL PROPERTIES OF ARLENTIN.—Arlentin, the alkaloid of uva ursi, is a potent diuretic, and becomes converted into hydrochinon and sugar by boiling with acids, or under the influence of fermentation. Dr. Mensche (*Centralbl. für Klin. Med.*, November 27, 1883), gives the following as the results of his observations upon the action of this alkaloid. 1. In many cases it has proved to be a valuable diuretic. 2. It may be given in large doses without detriment. 3. It becomes converted into hydrochinon in the human urine. Its action as a diuretic was noted in two cases; in one, a case of mitral insufficiency, enlarged liver, and albuminous urine, the quantity of urine was augmented by about four ounces in twenty-four hours. In another case (tubercular peritonitis) the quantity of urine was augmented by about six ounces daily. In another instance the amount of the excretion was doubled under the influence of arlentin. This medicine has, however, Dr. Mensche reports, a specially beneficial action in vesical catarrh; and he suggests its employment in the place of uva ursi. In gonorrhœa, the author considers that it may supersede the use of injections by its conversion in the urine into hydrochinon.

HYDROTHERAPEUTIC TREATMENT OF DISEASES IN CHILDREN.—Professor Heubner has communicated to the *Aertzl. Vereinsbl. für Deutschland* a paper on the hydrotherapeutic treatment of acute diseases in children. The trunk in children comprises so great a proportion of the whole body, that the cooling of it produces a very marked effect on the whole organism. A cloth wrung out of water of the temperature of 60.8° F., should be placed over the chest, abdomen, and thighs of the child, and be well pressed down to the sides, the whole being covered with flannel. This should be renewed every half-hour with a temperature of 104° F., every hour when it is a little lower, and the treatment should be kept up for the greater part of a day. The temperature will be still more reduced by cold packing all over the body, but the younger the child, the less can cold be borne. Another use of hydrotherapy is to induce heat and perspiration, and this is useful in catarrhal affections. The wet bandages must be surrounded by a looser flannel covering, and may remain for an hour and a half without being moved. The addition of a little mustard to the water will assist the action desired.

THE PATHOLOGY OF DROPSY.—Dr. Lauder Brunton, in the *Practitioner*, September, 1883, contributes an able article on the pathology of dropsy. Dropsy is an accumulation of fluid in the lymph-spaces. In the normal condition these lymph-spaces are only moistened with lymph, whereas in dropsy they may contain it in great quantities. Dr. Brunton compares the lymph-spaces to a cistern; the arteries and capillaries are supply-pipes, the veins and lymphatic vessels are the exit-pipes. In health the lymph-spaces are merely moistened with lymph, because the veins and lymphatics at once carry it away from the spaces. If the lymphatics be ligatured, it is found that the veins are large enough to carry off the lymph, and no accumulation of fluid occurs. The lymphatics alone may also be sufficient to carry off the fluid when the veins are obstructed. Ligature of the veins produces increased flow of lymph through the lymphatics. The fascia between the muscles is spoken of as a pumping arrangement, by which the lymph is drawn out of the muscle, and is passed onwards into the lymphatics. In speaking of the well-known experiments of Claude Bernard on the submaxillary gland, attention is drawn to the remarkable change which is noticed if a dose of atropine be administered to the animal under observation. If the chorda tympani be irritated after poisoning by atropine, the vessels dilate, the veins become full, but not a drop of saliva is secreted by the cells. This is usually explained by saying that the atropine paralyzes the peripheral ends of the secreting nerves in the cells of the gland, but Dr. Brunton explains the phenomenon by assuming that the atropine has so altered the vessels as to prevent the exudation of lymph from them into the lymph-spaces, at the same time that it has allowed the arteries to dilate; and thus atropine may have an action on the vessels of the gland which has hitherto been entirely overlooked, and if it have the power of preventing the exudation of lymph from the blood-vessels into the lymph-spaces, it will enormously increase our power to prevent or to lessen dropsy. Dr. Gaskell has shown that dilute acids cause relaxation of the muscular substance of the heart and blood-vessels, while dilute alkalies cause contraction. Under the influence of acids, therefore, tissues will become œdematous, whilst under the influence of alkalies there appears to be an arrest of the flow of lymph from the blood-vessels into the lymph-spaces. The increased permeability of the vessels may be produced by acids circulating in the blood, by acids applied to them from without, or by acids, or poisons which act like acids, absorbed from the intestinal canal or formed in the tissues themselves.

ALBUMINURIA IN CHILDREN.—M. Leroux, as the result of researches on the urine of 118 girls and 212 boys in the *Hospice des Enfants Assistés*, has found that, in the case of children effected with marked albuminuria, the qualitative alteration appeared pretty constant, and independent of the time of examination; while in the case of children with only transitory albuminuria, he found that it was in the afternoon between one and three o'clock, that is to say after a full meal, that reagents most often threw down a cloud more or less marked, whilst equally fresh urine in the morning only gave negative results. From these facts he inclines to the opinion of Johnson against that of Fürbringer, and accords a certain importance, as a factor in determining the presence of albumen, to the repast which has preceded the examination by two or three hours.

VALERIANATE OF ZINC IN DIABETES INSIPIDUS.—Dr. Cole, in the *Lancet*, records the notes of a case of diabetes insipidus in a lady, aged thirty, single, of delicate constitution, who had been ailing for nearly two years. The author commenced treatment with ergot, in gradually increasing doses of the liquid extract, until half an ounce every four hours was reached. This amount was maintained for more than a week, without the least effect on the disorder. Next valerianate of zinc was given in doses of five grains every six hours, and after a fortnight the patient was completely cured.

THE ACTION OF IODOFORM IN DIABETES MELLITUS.—Professor Bozzolo (*Archiv. Ital. de Biolog.*), after satisfying himself of the beneficial effects of iodoform in several cases of diabetes mellitus, caused a series of laboratory investigations to be conducted by his laboratory student, M. Balp, to determine the influence of iodoform upon the number of red corpuscles, the quantity of hæmoglobin, and the arterial tension. These observations were conducted with great care, and by the use of the most approved physiological apparatus. In two cases of diabetes he found that iodoform in large doses—that is, one to two grammes—diminished the elimination of sugar and the quantity of urine, that it diminished the number of red corpuscles and of hæmoglobin, and that it diminished the arterial tension. To explain the diminution of red corpuscles he cites the theory of Binz, that the iodoform, through the iodine which disengages itself, as in iodate of sodium, destroys the red corpuscles, and produces partial coagulations. If this be the fact, the diminution must be progressive, and patients using iodoform would become rapidly anæmic, which anæmia has not been observed so far in cases under this treatment. The diminution of arterial tension would explain the effect of the drug in reducing the quantity of urine, in eliminating glucose, and on the quantity of corpuscles and of hæmoglobin; and Professor Bozzolo inclines to the view that the iodoform exerts influence on the centres, and especially upon the vaso-motor centres.

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THE GOVERNMENT AND THE PHARMACOPŒIA.

THE proposition now before Congress, and to which we have previously alluded, to destroy the present Pharmacopœia, and to create a new one under the auspices of the National Government, does not appear to be meeting with the cordial support that the promoters doubtless expected. So far as we are aware, the medical and pharmaceutic press, with but two noteworthy exceptions, are frankly opposed to the proposed change of régime. For nearly fifty years the Pharmacopœia, from both a scientific and commercial standpoint, was controlled by Philadelphia. During this period it can hardly be said to have had an independent existence. Its chief function was to serve as a foundation for a separate and purely commercial venture. Though published at a nominal price, its contents were deemed of so little value that it rarely found purchasers among either of the professions it professed to represent. It is safe to say that the new Pharmacopœia, though costing twice as much as the old one, has found more purchasers in a year than the old one did in the previous ten. Despite this fact, those who formerly controlled this work profess to be dissatisfied with the result and demand a change, hoping to obtain, through governmental interference, that which the professions of medicine and pharmacy, through their representatives in 1880, decided they were unworthy to hold. We have no hesitation in saying that the labors of the twenty-five gentlemen who prepared the last revision merit a juster recognition than that conveyed by the attempt to render nugatory their work. When we consider that it was purely a labor of love, that no pecuniary recompense has been accepted by them, we are hardly prepared to endorse the bill now awaiting the action of Congress. That Philadelphia is disappointed in not having secured the publication of the present work may be reasonably inferred from the tone of her journals at the time of the award. This is not sufficient reason, however, for the effort, at present being made, to throw both medicine and pharmacy into confusion by the erection of new standards, which, though having the nominal patronage of the Government, will at the same time be entirely without legal validity in every State in the Union. If, as we are credibly informed, the gentleman who drafted the bill before Congress is a member of the present pharmacopœial commission, we can but allude to the bird that fouls its own nest, and leave him to the tender mercies of his colleagues.

PERMITTING A TESTATOR TO PROVE HIS SANITY.

A BILL has just been presented to the Legislature of this State allowing a person to file his will in the Surrogate's office of the County in which he resides, and permitting him to prove before his death his capacity for making a will. This bill is founded on the Michigan law, permitting such a course at the option of the testator, and which has been found to work well in that State. The great danger that estates will be put to large expense in sustaining wills against unscrupulous contestants, and the probability that unpleasant family secrets may be disclosed, has led many persons to devise some plan by which these evils might be avoided. It will be impossible, however, to frame any law which will entirely prevent litigation; the most that can be secured is a law which will enable a testator during his lifetime to establish both his capacity for making a will and the legality of its provisions. It is uncertain, of course, what advantage would be taken of such a law if it should be passed by the Legislature, but it is a plan which has merits, and persons ought to be at liberty to try it if they desire. The provisions of the act will be found interesting, and are as follows:

SECTION 1. To any will heretofore or hereafter executed, the testator may make and annex his petition, to be sworn to before, and presented to, the Surrogate for the County where the testator resides, or to any court or officer having jurisdiction to take probate of wills, asking that such will be admitted and established as his last will and testament.

SEC. 2. Every such petition shall contain averments that such will was duly executed by the petitioner, without fear, fraud, importunity, or undue influence, and with a full knowledge of its contents, and that the testator is of sound mind and memory and full testamentary capacity, and shall state the names and address of every person who at the time of making and filing the same would be interested in the estate of the maker of such will as heir, if such maker should at the making of such petition become deceased, and may also contain the names and addresses of any other persons whom such testator may desire to make parties to such proceedings.

SEC. 3. Such court shall thereupon, upon request of such testator, appoint a time for the hearing of such petition, and issue citations to the parties named in such petition, and direct published notice of such hearing and have such hearing, after proof of service of citations and of publication of notice, in the manner, as near as practicable, as is required for the probate of wills.

SEC. 4. If any person named in such petition shall be a minor, or otherwise under disability, a guardian *ad litem* shall be appointed by such judge to represent such person. On such hearing such court shall examine into the matters alleged in such petition, and into the testamentary capacity of such testator, and examine witnesses in relation thereto; and if it shall appear that the allegations of such petition are true, and that such testator was of sound mind and memory and full testamentary capacity, such judge shall make decree thereon, and shall cause a copy of such decree to be attached to said will, certified under the seal of said court, decreeing that the testator at the making of such will and such petition was possessed of sound mind and memory and full testamentary

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capacity, and that said will was executed without fear, fraud, importunity, or undue influence; which decree shall have the same effect as if made by said court after the death of testator on the probate of such will; and such will having been so established, shall not be set aside or impeached on the ground of insanity or want of testamentary capacity on the part of the testator, or that the same was executed through fear, fraud, importunity, or undue influence.

FREE MEDICAL COLLEGES.

A BILL has been introduced into the Legislature of Virginia appropriating an annuity of $7,500 to the Richmond Medical College. In return for this each member of the Legislature is entitled to appoint from his district a student who shall be allowed tuition at the said college free of all charge, except the sum of five dollars as a matriculation fee.

The results of such legislation, as well as the principles upon which it is based, are unqualifiedly bad, and we trust that the bill will not become a law. We shall gladly encourage the endowment, from any source, of medical colleges, provided such endowments are devoted to increasing the facilities for instruction and scientific work. But endowments which aim simply to gather in pauper students are opposed to public policy and professional interests. The State, indeed, has no more right to spend its money in teaching medicine than in teaching law, agriculture, or the arts.

We are surprised that a college which has so indignantly repelled certain criticisms which we have made as to the superiority of its methods, should thus stoop to begging of the Legislature for one hundred and forty free scholarships.

KOCH'S LATEST INVESTIGATIONS IN CHOLERA.

WE referred in our last issue to the fact that Koch had made another report upon the progress of his work at Calcutta. This report is a short one, and is mainly confirmatory of what the commission discovered while in Egypt.

Since their arrival in Calcutta, post-mortem examinations of eight cases of cholera have been made. In all of these, the peculiar bacillus before seen was discovered, both in the intestinal wall and in the dejectæ. These bacilli have been cultivated and found to have a peculiar appearance and life history, which distinguishes them from other micro-organisms. Attempts to cause the disease by inoculating the bacilli in other animals have, however, as yet failed.

The intestines of various animals and of eight persons, dying from other diseases than cholera, have also been examined, and the peculiar bacilli not found.

Koch believes, therefore, that he has found the germ of cholera, although the fact is not yet demonstrated. Dr. Koch pays his respects briefly to the French commission and its alleged discovery of peculiar micro-organisms in the blood. These, he says, are only what can be discovered in other diseases. Besides, they have been seen and described by Dr. Cunningham as long ago as 1872.

THE MEDICAL ASSOCIATION OF GEORGIA meets at Macon, on April 6th.

CREDIT TO AMERICAN INVESTIGATORS.

IT does not speak well for American medical men that the only addition which has been made in this country to bacterial pathology has been made, not by a doctor of medicine, but by veterinary surgeons.

If we cannot claim credit for our profession, however, we can at least insist that proper acknowledgments be paid our country by foreign investigators.

Dr. D. E. Salmon, in *Science*, calls attention to certain errors or omissions made by Pasteur in regard to the discovery of the pathogenic germ of hog-cholera (*rouget*-infectious pneumo-enteritis). From this it appears that Dr. Klein, in 1876, first discovered the organism, but failed to recognize its function. In 1878, and in subsequent years, Dr. Detmers announced the existence of micro-organisms in this disease, but failed to prove that they were the cause of the same. In 1880, M. Mégnin described and figured the organisms of hog-cholera, and in the same year Dr. D. E. Salmon proved for the first time that these organisms existed in the blood of the living animal. He subsequently cultivated them, and showed that they were pathogenetic. It was not until March, 1882, that M. Thuillier, the victim of the Egyptian cholera, independently made the same discovery. Pasteur gives the credit of it and priority to Dr. Detmers. Dr. Salmon writes: "Neither Pasteur nor Thuillier, nor any other investigators that I am aware of, have added one particle of evidence, except by way of confirmation, to that previously advanced by me. M. Pasteur is usually very particular in giving credit, but he does not seem to be keeping up with the progress of American science."

THE DANGER OF HYPODERMIC INJECTIONS OF CHLOROFORM.

AT the meeting of the Académie de Médecine on February 12th, M. Bouchard made a contribution of much practical interest. For some years he had observed that hypodermic injections of one cubic centimetre of chloroform in rabbits invariably produced death within about twenty-four hours. Much smaller injections, if repeated daily, also produced death eventually. He found that the same phenomenon occurred in dogs, though relatively larger doses were required. The same amount of chloroform inhaled or injected directly into the veins did not cause death.

Hence it was inferred that there is something particularly injurious in the hypodermic method of administering this drug.

All attempts, however, to discover how the chloroform produced these fatal results were without success. Albuminuria existed, but the histological examination of the kidneys showed only an intense congestion, and the blood did not contain any extraordinary accumulation of urea. M. Bouchard could not attribute death to uræmia. It appears to us that he lays too little stress upon the kidney lesion. His argument, however, is that animals to which chloroform is given by inhalation develop albuminuria also, but do not die.

Death could not result from any reflex cause, because after section of the nerves of the legs and injection of the chloroform the animals died. Neither could it be

due to any direct toxic effect, since intravenous injections did not prove fatal.

If we are to accept Bouchard's statements, therefore, there is something mysteriously fatal in the hypodermic method, so far as regards chloroform and certain lower animals.

The query arises whether this danger applies to man. It is not a very imminent one, but it is worth bearing in mind. The hypodermic administration in one day of an ounce of chloroform might be fatal. The continuous daily administration of one-fourth or even one-tenth of this dose might also prove fatal.

In harmony with Bouchard's conclusions are the similar experiments made by Colin of Alfort, with chloral.

DISTILLED WATER AND OLD AGE.

THE Psalmist David allowed seventy years as the natural duration of life, Pythagoras placed the limit at eighty, London's hygienic philosopher, Dr. Richardson, gives us ten more, while Flourens believed that man ought to live one hundred years.

There is no doubt that the physiological limit of human life has been slightly increased in the present century, and a hundred years later it may be found that old age comes on still more slowly and gently. For, with the increased uncertainty as to a future life, human energies are directing themselves with greater earnestness toward solving the problems of a more healthful and longer terrestrial existence.

The physiological chemist tells us that after the age of forty or forty-five, disassimilation gradually begins to exceed assimilation, and the structures of the body slowly waste. Muscle and nerve, which are the "master tissues," feel this first. The dynamic coefficient of both striped and unstriped muscle decreases after forty; the limbs become less supple, and the hollow viscera have a feebler expulsive force. The nervous system is less sensitive and plastic. Impulses travel between centre and periphery with more difficulty. The individual loses spontaneity and becomes more automatic, more a creature of determined habits.

The lower tissues also undergo very marked and characteristic changes. The fibrin-factors of the blood increase in amount, the bones become drier, the cartilages ossify, and the arteries especially become the seat of fatty degeneration and calcareous deposits.

Dr. Richardson announces that "his experiments show" that the colloidal matter (protoplasm?) of the body in old age contains less water, and that its particles are consequently more cohesive. It is true, at any rate, that the total amount of water in the body is less.

The essential fact as regards senile changes is that the metabolic function is weakened. Consequently the food, instead of being built up into good tissue, is oxidized into less complex substances. The protoplasm turns out fat instead of new protoplasm, the circulatory apparatus becomes weaker, the blood stagnates, carbonic acid precipitates and earthy salts which it kept in solution are deposited.

Now certain recent philosophers have thought that, by preventing these fatty and calcareous changes, old age could be delayed. A Swiss physician, a few years ago, argued that lemons, *i.e.*, citric acid, would accomplish this end, and saw immortality in lemonade. More recently, a writer in *Knowledge*, Mr. W. O. Dawson, has presented a new *regimen sanitatis* which he claims is the most rational and certain means of retarding old age. It consists in avoiding all food rich in earthy salts, and in taking, daily, two or three tumblerfuls of distilled water with ten or fifteen drops of dilute phosphoric acid in each glassful. The food freest of earthy salts is: fruits, fish, and poultry, young mutton and veal.

We can testify with Mr. Dawson that this kind of diet is harmless, but we are profoundly skeptical as to its efficiency.

Old age is part of the life history of the organism. There is that in the child at birth which determines very nearly when old age shall appear. Senility is a failure of nutrition. We can only delay its appearance by living a life which puts no undue strain on the organism, and by furnishing it with the easiest means of working. We cannot expect to accomplish this end simply by cutting off certain deleterious supplies. If one would live long, let him especially take care of his "master tissues," the muscle and nerve, when young. This means rational exercise of body and a well-balanced cultivation of mind. Brain workers live long. Brain and muscle workers longer still. No one has yet given better advice for the retarding of old age than did Christopher Hufeland, a century ago. Let those who wish old age study him and put no trust in distilled water.

THE PERIODICITY OF FEVERS.

OBERMEIER'S discovery of the actions of spirilli in relapsing fever threw great light upon this point, which has not been developed in kindred diseases with the ingenuity that generally characterizes the medical profession. Lefort, Weigert, Buchwald, and Guttman, the latter in two hundred and eighty cases, have all corroborated Obermeier's observations, viz., that spirilli are always to be found during the paroxysm of the fever and its relapses; the numbers of these micro-organisms are proportionate to the severity of the attack; and they disappear entirely during the apyrexia, when not a trace of them is to be found. They died during the apyrexia, and only their eggs or germs remained, to be vivified in about fourteen days, and occasion another attack or relapse.

Relapsing fever is defined as an acute contagious fever, consisting of a febrile paroxysm of abrupt onset, with epigastric tenderness, vomiting, often jaundice, with enlargement of the liver and spleen, and terminating suddenly about the fifth or seventh day with free perspiration. Then follows an interval of complete apyrexia, succeeded by an abrupt relapse on or about the fourteenth day from the beginning of the disease, which runs a course similar to that of the initial paroxysm, but terminates on or about the third day. Convalescence usually follows upon the conclusion of this first relapse; but a second, third, or even fourth has been observed. Like intermittent fever, fatal terminations are infrequent, and enlargements of the liver and spleen are not uncommon.

These facts may justly incline some of our readers to believe in the bacillus malariæ of Klebs and Tommasi Crudeli, and to imagine that it has a somewhat similar,

but of course different, life-history from that of the spirilla of Obermeier. The suddenness of the attacks, the shortness of the paroxysms, the terminations in perspiration, the frequency of relapses, and the congestions of internal organs, especially of the liver and spleen, present great similarities in the two diseases. But spirilla and bacillæ are very different, although very small things. Quinine will destroy the latter—which are, perhaps, a special variety of the bacteriæ of common vegetable decomposition—but is comparatively impotent against the bacteriæ of animal or septic decomposition, or putrefaction. Although quinine fails to cure relapsing fever and kill spirilli, yet a combination of quinine and camphor was found useful during the intermission, and in the early convalescence. But Riess, of Berlin, found a germicide, viz., salicylate of soda, very effective in reducing the temperature, and when given in large doses during the intermission it lessened the severity, and apparently sometimes prevented the relapses. Arsenic was useless, but a combination of corrosive sublimate in tincture cinchona has not been tried. Of course the enormous development of the protomycetes in the blood during the paroxysms, and their disappearance during the intermission, suggested the use of parasiticides; but the sulphites failed and the preparations of chlorine. The mineral acids deserve attention, and turpentine, iodide, and bromine.

The history of the Ephemera, a genus of insects of the order Neuroptera, deserves a little attention here, merely as corroborative and suggestive. Linnæus gave the name Ephemera to these insects because they appear in their complete or winged form only for a day, though in the larva and nymph states they are said to live beneath water and elsewhere perhaps for two or three years. Appearing above the water and in the air, they provide for the continuance of their race, and then die. Though but frail and delicate insects, they have been found in certain districts in France covering the ground in such enormous numbers as to be collected by cartloads for manure. One form, the common white moth, or small butterfly, the *Ephemera albi pennis*, or white-winged, is sometimes seen in such quantities by the banks of rivers as to whiten the air and ground like drifting snow.

We do not wish any one to infer that these creatures cause fever and ague, or relapsing, or any other form of fever, but merely to point out a line of direction to which the thoughts of scientists may be turned.

THE LOUISVILLE MEDICAL COLLEGES.

THERE appears to be no doubt that some very unseemly practices have been going on in connection with the medical colleges at Louisville, Ky.; and the Louisville Medical College is said to be the chief offender. Documents are published showing that this institution began last summer systematically to canvass for students, offering to many a reduction in the advertised price of tuition.

Such practices are certainly not reputable, and in the end must hurt the reputation and standing of the college which indulges in them. Institutions for medical instruction which have to beg and underbid for students, or lobby for free scholarships, have survived their usefulness.

We hardly know what can be done, however. There are plenty of medical students, the last census giving over 10,000; but the colleges appear to increase as fast as the students, and they must work for their share. We can only urge it upon the medical profession that they lend countenance and support only to such institutions as show themselves conscious of the dignity of the profession, and of the deep responsibilities that fall upon medical teachers at the present time.

News of the Week.

SUFFERINGS OF PHYSICIANS IN THE FLOODED DISTRICTS.—We have received from Dr. D. B. Colton, of Portsmouth, Ohio, a very graphic yet sad description of the sufferings brought about by the flood at that place.

He writes that for nine days his office and residence were under the water. Nearly all his medical books, the accumulation of thirty years, were destroyed. His medicines were ruined or washed away, his buggy wrecked, and he had to swim his horse to high ground for safety.

During this time, he writes, "I was busy day and night. I went from house to house in hurriedly improvised boats, or on rafts, entering the second stories through the windows, or climbing ladders and passing over the roofs and descending through hatches. There was much sickness and suffering, especially among the children. Many women aborted from exposure and terror, and there were a number of cases of eclampsia among the parturient women. Many houses (whole streets) are wrecked, or have been washed away down the raging waters with all their contents. Our people are impoverished, and it will be a long time before they will have anything 'to spare for the doctor.' Six thousand of them are fed to-day by the generous gifts of the noble people throughout our land. God bless our benefactors, and may none of them experience what we have just gone through. If you know of any physicians in your city who have duplicate copies of medical works or anything in the line of physicians' supplies for which they have no use, they will confer a favor if they will send them to Portsmouth."

We trust that some of our readers may be able to furnish help in the way indicated. THE RECORD will co-operate in any efforts in this direction.

THREE CASES OF TYPHUS FEVER were found last week in the city, and were removed to Riverside Hospital.

THE NEW YORK COUNTY MEDICAL SOCIETY.—The *Planet* has shed the rays of its effulgent aud penetrating criticism upon the New York County Medical Society. It is stated that the meetings are small, the papers poor, and the discussions "put up" by specialists. On the contrary, the meetings have never been larger, the papers better, or the society more active and useful. Every one who wishes to discuss a paper has abundant opportunity to do. We venture thus upon the painful duty of contradicting our reflective contemporary, because its comments will doubtless be industriously copied and circulated by the same generous spirits which copied the misstatements in the *Ephemeris* about the County Society.

FOOT-AND-MOUTH DISEASE prevails in Kansas, and a district thirty-five miles in area has been put in quarantine.

ANIMAL QUARANTINE.—Our Government legislates in behalf of its cattle very easily. The House of Representatives has passed a bill empowering the President, in case of prevalence of contagious or infectious diseases among domestic animals in any State or Territory, to declare such State or Territory in quarantine, provided the Commissioner of Agriculture declare such disease dangerous to the animal industries of the nation, and the State or Territory fails to make provisions for its extirpation.

THE SIXTH ANNUAL MEETING OF THE SANITARY COUNCIL OF THE MISSISSIPPI VALLEY will be held in the city of Memphis, Tenn., on Wednesday, March 19, 1884.

THE KENTUCKY STATE MEDICAL SOCIETY meets this year at Bowling Green, on June 3d, instead of May 7th, as first announced.

THE LOUISIANA STATE MEDICAL SOCIETY meets this year at Baton Rouge, May 21st. Dr. J. P. Davidson is president, and is making special efforts to have a large meeting. There is need of a greater interest in State societies on the part of some of our Southern States.

THE MEDICAL DEPARTMENT OF THE ARKANSAS INDUSTRIAL UNIVERSITY held its commencement exercises at Little Rock, on March 3d, and graduated a class of thirteen.

THE BALTIMORE COLLEGE OF PHYSICIANS AND SURGEONS held its annual commencement on March 4th, and conferred diplomas upon one hundred and twenty-seven graduates.

THE BALTIMORE MEDICAL COLLEGE held its annual commencement on March 6th, and conferred diplomas upon thirteen graduates. This college, we regret to learn, finds itself obliged to give up its long term of seven and a half months for a shorter one of five months. It gives a spring course, which is not, we presume, obligatory.

THE ST. JOSEPH MEDICAL COLLEGE held its seventh annual commencement on February 21st, at St. Joseph, Mo., graduating a class of six. Out of eleven who applied for degrees, five were "plucked."

THE MISSOURI MEDICAL COLLEGE held its annual commencement on March 4th, graduating one hundred and two students.

THE ST. LOUIS COLLEGE OF PHYSICIANS AND SURGEONS held its annual commencement on March 4th, graduating twenty-eight.

THE ST. LOUIS MEDICAL COLLEGE held its annual commencement on March 5th, graduating thirty-four.

THE MEHARRY MEDICAL COLLEGE for negroes, at Nashville, has just graduated a class of eight.

ALBANY MEDICAL COLLEGE.—On March 5th the alumni day and commencement of the Albany Medical College were celebrated. The alumni meeting was held in the afternoon, Dr. F. S. Greene acting president. An address of welcome was made by Dr. Maurice Perkins; eulogies upon the late Dr. Mosher were then delivered. The prize of $300, offered by Dr. Albert Van Derveer for the best essay on Colles' fracture, was awarded to Dr. Clinton B. Herrick, of Troy. Dr. Horace T. Hanks, of New York, was elected president of the Association for the ensuing year. The commencement exercises were held in the evening, when a class of forty-three was graduated, with appropriate ceremonies.

THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF NEW YORK held its annual commencement on the evening of March 11th, at the Academy of Music. Dr. John Hall, Chancellor of the University, presiding. Degrees were conferred upon one hundred and sixty-four graduates. The Mott Memorial Gold Medal, and various Faculty Prizes, were awarded. The valedictory address was delivered by Dr. F. K. Perkins.

The address to the graduates was delivered by Hon. Chauncey M. Depew. Every professional man, he said, owed something to the community in which he lives. All the educational, humanitarian, social, and political work of the neighborhood had legitimate claims upon him. His advantages imposed upon him public activities, and, in a sense, leadership. The doctor's opportunities surpassed all others. He should be informed and interested in all public questions, the friend of good government, and the enemy of bad rulers. His personality was as potent as his medicine. If of right mind and character, he imparts to the sufferer something of his own vitality, breezy hopefulness, and contented cheerfulness. "The Lord deliver me," said the speaker, "in mine extremity, from a doctor so absorbed in his own greatness or vanity that he cannot see me, the doctor who has a hobby and rides it roughshod over my aching bones, or the doctor whose breath is steeped in tobacco and whiskey. An eminent physician once gave as an axiom that the secret of longevity was a clear conscience and good digestion. The secret of becoming an eminent physician is devotion to your profession and cleanly life and conversation."

THE MEDICAL COLLEGE OF OHIO held its annual commencement on March 7th. At a subsequent meeting of the alumni, Dr. Sulton, president, delivered an address upon "Epidemics in Southeastern Indiana."

THE MEDICAL DEPARTMENT OF THE UNIVERSITY OF LOUISVILLE held its annual commencement on February 28th, graduating a class of seventy.

THE NASHVILLE MEDICAL COLLEGE held its annual commencement on February 26th, graduating a class of sixty-two.

RUSH MEDICAL COLLEGE had its annual commencement on February 19th, graduating one hundred and sixty-eight students. According to the *Weekly Medical Review*, the hospital now in course of erection adjacent to Rush College, and which has been up to this time carried forward by the College, has been transferred to an association of Presbyterians, and will shortly be formally turned over to their control. The association will complete the building, and it will be known as the Presbyterian Hospital of Chicago.

MEETING OF THE GERMAN CONGRESS OF INTERNAL MEDICINE.—The third German Medical Congress will be held in Berlin, under the presidency of Professor Frerichs, from April 21st to 24th. The following subjects have been selected for discussion. *First day:* Genuine Pneumonia, its anatomy, pathology, symptoms, and treatment (reporters, Dr. Jürgensen, of Tubingen, and Dr. A. Fränkel, of Berlin. *Second day:* Poliomyelitis and Neuritis (reporters, Dr. Leyden, of Berlin, and Dr. Schultze, of Heidelberg). *Third day:* Nervous Dyspepsia (reporters, Dr. Leube, of Erlangen, and Dr. Ewald, of Berlin). The following contributions have also been promised: Dr. Hermann Weber, of London, on the Hygiene of Schools in England, with special reference to infectious diseases; Dr. Rosenthal, of Erlangen, on Reflexes; Dr. Goltz, of Strassburg, on the Localization of the Functions of the Cerebrum; Dr. Pfeiffer, of Weimar, on Vaccination; Dr. Seagen, of Carlsbad, on Diabetes; Dr. Rossbach, of Jena, the Report of the Commission on the Treatment of Infectious Diseases, and on a New Therapeutic Action of Naphthalin.

THE PRESIDENCY OF THE NEW YORK STATE MEDICAL "ASSOCIATION."—We have received many inquiries and protests regarding the position of the president of the State Medical "Association," Dr. Didama, of Syracuse. There appears to be the most authentic evidence that he has regularly consulted with homœopaths. This, we believe, he does not even deny. If it is so, it makes his election to the presidency of an association whose shibboleth is "no consultations with homœopaths," a farcical performance. It also places the society in a very awkward position. We trust that a satisfactory explanation can be made. It is enough that the profession in the State be divided, without being made ridiculous.

THE THIRTEENTH ANNUAL CONGRESS OF GERMAN SURGEONS meets at Berlin, April 13 to 19, 1884, under the presidency of Professor von Langenbeck. Among the subjects to be discussed are the following: The Physiological Relations Between the Spleen and the Thyroid Glands; The Treatment of Paraplegia from Potts' Disease; The Ferment-intoxication from Blood-cysts; Massage.

KAIRIN is given subcutaneously by Queirolo, who finds that by this means less amounts can be given, and at rarer intervals.

THE TREATMENT OF RICKETS WITH SMALL DOSES OF PHOSPHORUS is strongly advised by Kassowitz, of Vienna.

DR. P. WESLEY YOUNG died, on March 8th, at his home in Granville County, N. C. He was fifty-three years of age, and one of the most prominent physicians and surgeons in North Carolina. During the war Dr. Young served as a surgeon in the Confederate army.

THE NEW SURGEON-GENERAL OF THE NAVY.—The profession will learn with regret that Dr. Wales, who served so efficiently as Surgeon-General of the Navy, has not been reappointed. During his administration the naval medical service began to take a more important position than ever before in scientific, and especially in preventive, medicine. Dr. Wales' successor, however, Dr. Francis M. Gunnell, has an excellent reputation, and there is no reason to suppose that the department under his care will suffer any decline. Dr. Gunnell is a native of Washington, and an alumnus of Georgetown University and of the Columbian University, Washington. He has served in the medical corps thirty-five years, and been at sea nearly seventeen years.

THE JOHNS HOPKINS HOSPITAL.—Already $211,006.36 has been spent upon this hospital, and it is estimated that $400,000 will be required for its completion. It is expected that it will be open before October, 1886.

DR. W. T. BELFIELD has been appointed Lecturer on Surgery in Rush Medical College.

THE STATE BOARD OF HEALTH—SUCCESSOR TO DR. ELISHA HARRIS.—The New York State Board of Health held a meeting on March 12th, and heard a report by Professor Chandler upon Water-gas. Professor Chandler said that practically it was no more poisonous than coal-gas, though it would kill people a little sooner. It was heavier than coal-gas, but was lighter than air, and had a perceptible odor.

Dr. Alfred L. Carroll, of West New Brighton, was elected Secretary in place of the late Dr. Harris.

The Board is trying to secure the passage of a bill voting $20,000 to prevent adulterations in food and drugs.

MEDICAL BERLIN.—At the meeting of the Berlin Medical Society, January 30, 1884, Dr. Worms exhibited a case of *Emphysema of the Skin.* A young girl of seven had suffered for several years from a bronchial catarrh, and was in a feeble condition. She was finally taken with severe attacks of coughing and vomiting. This was followed by pains in the neck and chest, and finally by a large emphysematous swelling of these parts. Dr. Worms believed that an air-lobule had burst, the air had escaped along the hilus of the lungs to the mediastinum and deep cellular tissue of the neck. The Society then resumed the discussion of matters pertaining to medical politics.

MEDICAL PARIS.—At the session of the Académie de Médecine, February 19th, M. Brouardel read for M. Ferré, of Bordeaux, a note upon the *microscopical examination of vaccine lymph.* The most remarkable element observed was a microbe somewhat like that described by M. Jolget. It was from one to three micromillimetres in diameter. They appear to be convex upon the upper surface, concave on the lower, from which latter there are two processes. These organisms have a rotary movement. M. Pinard related the history of a successful case of *vaginotomy for extra-uterine pregnancy.* The fœtus, which had been dead for a month and a half, was successfully extracted by means of an incision made in the posterior *cul-de-sac* of the vagina, to which the fœtal cyst was adherent.

The Society then continued its discussion of the lunacy laws. In this connection we add a criticism upon the Académie de Médecine made by the correspondent of *The Lancet:* "The Academy," he says, "seems to be growing less and less interesting, if one may judge from the small number of members who have been attending it for some time past. At the meeting of last

week there were so few present (scarcely a dozen) as to call forth the displeasure of M. Alphonse Guérin, the President, who expressed himself to that effect, and actually requested the reporters present to notice the fact in their respective journals. It has been remarked that it is only on election days that the Academy shows a pretty good muster, and that the absentees are generally to be found among the younger members. It must, however, be admitted that the meetings of the Academy, or rather the discussions that have taken place in it lately, are anything but interesting; little is to be learned from them, as the members go over ground that has already been traversed several times, old subjects merely being introduced under a new garb, and frequently left as before—that is, without any solution of the question submitted for discussion."

MEDICAL VIENNA.—The Royal Society of Physicians occupied the usual time of its session, on February 8th, by visiting the auditorium of Professor Stricker's laboratory, in order to witness a demonstration of the *electric light in microscopical demonstration.* The current could be used for lighting the hall, or could be turned into the microscopic camera. The microscopic image of the mesentery of a living frog was thrown upon the screen, and the circulation of blood shown with great distinctness. By the same means Stricker then demonstrated the structure of tendon; and Kundrat showed some pathological specimens.

THE SIMS MEMORIAL FUND.

To the Medical Profession and Others throughout the World:

The great achievements of Dr. J. Marion Sims call for some more lasting testimonial than obituaries and eulogies. To him medical science is indebted for much brilliant and original work, especially in gynecological surgery. Those who have been benefited by his teachings and new operations, and such as have had the direct advantage of his personal skill are among the first to recognize and acknowledge this debt.

To him is due the honor of giving the first strong impulse to the study of gynecological surgery in America.

It is believed that the medical profession everywhere, the vast number of women who owe their relief from suffering directly to him, and those who realize the benefits he first made possible, will gladly unite thus to honor the man through whose original and inventive genius such blessings have been conferred upon humanity.

At the suggestion of many friends, therefore, the subjoined committee has been organized, and it is proposed that a suitable monument be erected to his memory in the city of New York.

To this end the active co-operation of the medical profession and the many other friends of Dr. Sims throughout the world is respectfully solicited. Contributions of one dollar and upward may be forwarded to the journal which has been constituted the treasury of this fund—THE MEDICAL RECORD, New York.

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Reviews and Notices of Books.

VOICE, SONG, AND SPEECH; A Practical Guide for the Use of Singers and Speakers; from the Combined View of Vocal Surgeon and Voice Trainer. By LENNOX BROWNE, F.R.C.S., and EMIL BEHNKE. New York: G. P. Putnam's Sons. 1883.

THERE is something in this volume that distinguishes it from most of the works written for the instruction of the laity, viz., originality of research. One of the authors is a surgeon and a laryngologist of some prominence, while the other is a lecturer on the physiology of voice production. Both have previously contributed to the literature of the vocal apparatus, and they have now joined forces in the preparation of this work.

The first thing that strikes the reviewer is the success that the authors have had in obtaining photographic reproductions of the interior of the larynx during the production of various notes. They are truly remarkable and worthy of the highest praise. The difficulties of the task cannot be overestimated.

The other illustrations embodied in the work are very well executed wood-cuts and add to the interest of the volume; but they contain little that has not been equally well represented by others. Some of them are adaptations of illustrations already well known.

The text of the work covers the anatomy and physiology of the chest and larynx, and the laws of sound with some detail. Forty pages are subsequently devoted to the laryngoscope and its uses; about fifty to the hygiene of the vocal apparatus; sixty to the cultivation of the voice; twenty-five to directions regarding the daily life of the singer; twenty to the various ailments of the voice; and about fifteen to defects of speech.

This volume is destined to become popular among those who either have, or are anxious to have, a musical voice and with public speakers. Its style is lucid and comparatively free from technical terms, in which respect it is to be commended. The publishers have issued the work in an attractive form.

CHEMISTRY: Inorganic and Organic, with Experiments. By CHARLES LOUDON BLOXAM, Professor of Chemistry in King's College, London, etc., etc. From the fifth and revised edition. With two hundred and ninety-two illustrations. 8vo, pp. 738. Philadelphia: H. C. Lea's Son & Co. 1883.

THE volume before us varies in a manner from the general run of similar works, as regards the method in which the several portions of the text are presented to the reader. The author's design has been to give clearly and concisely a simple description of the elements and their principal compounds, together with the chemical principles involved in some of the most important branches of manufacture. With this object in view, he has permitted as few technical terms as possible to be employed, more particularly at the commencement, thus affording the student of chemistry the comparatively rare opportunity of passing almost unconsciously into the application of its science, and, too, with more comprehension of the details than is usual, without having first to master that branch of the science which treats of the various terms employed, and which, moreover, he cannot well appreciate at the onset. A great assistance in this direction is also afforded by numerous descriptions throughout, and in most instances accompanied by wood-cuts, illustrating the several experiments which the author has considered most useful in delineating his lectures, and thus fixing the attention of the student, as well as assisting those who wish to make similar experiments for their own instruction or for the benefit of a class.

As a rule, English weights and measures and the Fahrenheit thermometric degrees are employed. The various calculations are also given in the simplest arithmetical form. The table of atomic weights is arranged so as to indicate the quantivalence of the elementary bodies. Special attention is also devoted to metallurgy and other branches of applied chemistry, which will prove of rare service to those who are devoted to manufacture. The table of contents deserves especial mention. This has been made in the form of an abstract, so as to serve comparatively the purpose of a quiz, by means of which the student may examine himself upon each or any portion of the book. The index, which is essentially of great importance in a work of this kind, is arranged with much satisfaction, besides being a dictionary of the most important formulæ. No one, more especially the student, can fail to appreciate the assistance which this work will afford; and for those who desire merely a general knowledge of the subject, without its several details, the book is highly commendable, inasmuch as all matter which would be of less importance to them is presented throughout in smaller type.

SURGICALLY APPLIED ANATOMY. By FREDERICK TREVES, F.R.C.S., Assistant Surgeon to, and Senior Demonstrator of Anatomy at the London Hospital, etc. Illustrated with sixty-one engravings. Philadelphia: H. C. Lea's Son & Co.

THE author of this manual has intended it chiefly for the benefit of students preparing for their final examination in surgery, although it is possible that many of the younger students may find it of service in rendering not only their surgery but also their anatomy more intelligent and more easily comprehended. The work will also be found valuable to the general practitioner as a book of ready reference. The application of surgery to the several details of anatomy and the actual bearings which anatomy has upon the effects of disease are presented in a simple and concise manner for which the author deserves great credit. The entire general subject of anatomy is gone over, as a rule, however, avoiding all detailed description; *e.g.*, in hernia the accounts of the regions concerned are omitted, the reader being referred to the systematic treatises, and the author dealing only with the bearings of anatomy of the parts upon the circumstances of practice. Also, for a similar reason, all those parts of the surgery of the arteries which deal with ligatures, collateral circulation, abnormalities, etc., are likewise omitted. In general, the book is thorough in its plan, easy of comprehension, and is well worthy of recommendation.

HEALTH IN THE HOUSEHOLD; OR, HYGIENIC COOKERY. By SUSAN W. DODDS, M.D. New York: Fowler & Wells. 1884.

CONSIDERED as a scientific contribution this book, which is simply a vapid rehash of vegetarianism, is dear at any price; regarded in the same light as that now classical work, "English as She is Spoke," or, in other words, as a pure and typical example of a "joke in sober earnest," we can cordially endorse it as a capital investment.

By those misguided persons who have been led astray by the unnatural doctrines of Dalton, Flint, and other dissolute physiologists, and who are hopelessly steeped in the foulness of the flesh-pots; who are accustomed to look upon the steak when it is red with the utmost equanimity; who recklessly pander to the Christmas cravings of their children's *pylori* in the shape of roast turkey and mince pie; who unblushingly deem themselves fresh enough to require a little salt, and other fiery condiments of a more or less inorganic nature, for their stomach's sake; who are still wretchedly starving upon a diet of the whitest bread they can bribe their baker to furnish, and to whom the old saw about the "buttered side down" is still a painful reality; who habitually indulge in the deepest potations of water during their meals and shamelessly touch, taste, and handle the unclean thing at a temperature less than 112° F.; to whom lard and total depravity are synonymous terms, and who revel in

the wildest orgies of the ham-and-eggs habit, the glowing effort of our ardent authoress will be received with a ribald merriment symptomatic of their debauched intellects. We do not doubt, however, that those who are wont to sup on the horrors of the advertising columns of our alleged religious contemporaries will be quick to hail this hygienic missionary as the worthy successor of that apostle of sweetness and light in the realms of evangelical physiology, the late lamented Lydia.

A TREATISE ON PHARMACY: Designed as a Text-Book for the Student, and as a Guide for the Physician and Pharmacist, containing the Officinal and many Unofficinal Formulas, and numerous Extemporaneous Prescriptions. By EDWARD PARRISH, Late Professor of Theory and Practice of Pharmacy in the Philadelphia College of Pharmacy, etc. Fifth Edition, enlarged and thoroughly revised, by THOMAS S. WIEGAND. With two hundred and fifty-six illustrations. 8vo, pp. 1,090. Philadelphia: H. C. Lea's Son & Co. 1884.

THE new, fifth, edition of Mr. Parrish's standard work, the editor states in his preface, has been rendered an imperative necessity, not only by the late revision of the U. S. Pharmacopœia, but also by the great advance in chemical and pharmaceutical science within the last ten years. In the present volume, while an effort has been made at condensation, yet the many necessary changes, which have greatly increased the labor of the editor, have also added materially to the size of the book. The new preparations of the Pharmacopœia have been embodied in the work, together with its tests for chemical and officinal compounds, and its system of parts by weight instead of definite quantities. The entire chemical section has been rearranged, and the subjects both of qualitative and quantitative analysis are presented as completely as possible. All general pharmaceutical and chemical processes have been arranged separately, thus affording ready reference and avoiding repetition. The syllabi, which in previous editions were deemed so essential a feature, have been retained. On these Professor Maisch has bestowed much care, and while many of them have been rewritten new ones have also been added. In addition, all new remedies of value have been introduced in the work, and in the chapter on Elixirs many new popular formulæ are noticed. The editor has certainly completed his task with much credit, and there can be no doubt of the fair appreciation with which the present edition will be received.

ON THE PATHOLOGY AND TREATMENT OF GONORRHŒA. By J. L. MILTON, Senior Surgeon to St. John's Hospital for Diseases of the Skin, London. Fifth Edition. New York: Wm. Wood & Co. 1884.

WE are glad to notice that Mr. Milton's carefully written and thoroughly deserving work on this important and perplexing subject has reached its fifth edition. The reader is at once struck with the earnestness as well as the scientific acumen of the author, who gives us the carefully sifted results of a vast amount of research in language delightfully elegant, yet always pointed and forcible. His earnestness, however, is never accentuated by prejudice; he strictly preserves the judicial character throughout. His polished style and rhetorical vigor have not tempted him from a direct and simple presentation of his subject. On the contrary, the book is thoughtful, energetic, business-like, and practical throughout. "My aim," says the author in the preface "was, as far as possible, *to separate clearly what might be looked on as established from what was doubtful, and not merely to prove every assertion, but to place it on such a basis that it could not be disproved.* Nothing has been recommended by myself in this work but what has stood the brunt, not merely of experience, for that I rate rather low, but of special observation." A rather difficult job, this; yet no one can read the book without admitting that our author, while dodging nothing and departing in nowise from the scheme laid down by himself at the start, has certainly succeeded remarkably well. There are few subjects in medical literature more entangled in tradition and stained with the most extravagant empyricism, than this one of the treatment of gonorrhœa. Very naturally, then, over two-thirds of Mr. Milton's rather voluminous efforts are devoted to its discussion; and the natural, logical, masterly, and often adroit way in which he evolves order out of chaos is deserving of the highest praise. As a well-knit philosophical treatise the book is a model. As a hand-book for the busy practitioner it is a most valuable and reliable acquisition to a literature teeming with crudities; while, containing as it does the thoroughly digested results of personal investigation according to modern scientific methods, it will be not merely suggestive, but indispensable to the specialist.

A COMPLETE OBSTETRIC RECORD, together with a Medical History of the Pregnancy. Ann Arbor, Mich.: Joel A. Minor.

THE book before us provides for all the ordinary records generally kept by the physician, as required by the various State laws, together with a full history of the pregnancy and the events pertaining to it. In addition, it embodies full medical statistics, viz.: The diseases and the tendencies to diseases in the father and the mother, their habits, etc., as well as the future medical history of the child, so far as may be possible to state. The work is certainly all that it claims to be, a complete obstetric record, and is far more desirable than the usual blanks offered to the profession.

TRANSACTIONS OF THE MINNESOTA STATE MEDICAL SOCIETY. 1883.

WE are in receipt of the volume for 1883 of the "Transactions of the Minnesota State Medical Society," which held its annual meeting June 19th. The address of welcome was delivered by Dr. McMurdy. A resolution was adopted, urging upon Congress the necessity of making an appropriation sufficient to provide a fire-proof building, suitable to accommodate the collections of the Army Medical Library and Museum. The president, Dr. Millard, delivered the customary address, dwelling particularly upon micro-organisms and their part played in the animal and vegetable kingdoms. Following this the usual essays were presented, many of which were of marked value.

A PRACTICAL TREATISE ON SURGICAL DIAGNOSIS, designed as a Manual for Practitioners and Students in Medicine. By AMBROSE L. RANNEY, A.M., M.D., Professor of Practical Anatomy in New York Post-Graduate Medical School, etc., etc. Third edition, thoroughly revised, enlarged, and profusely illustrated. 8vo, pp. 608. New York: Wm. Wood & Co. 1884.

ONE of the noticeable features in the new edition of Professor Ranney's "Diagnosis" is the plentiful supply of descriptive text in connection with his plan of contrast of symptoms. This is a great improvement and tends to make the book more directly available for the student who does not already appreciate the force and significance of certain symptoms. Dr. Ranney has laid this essential ground-work very well and has enhanced the value of his general work accordingly. In a work of this sort too much care cannot be taken to bring out the salient points of a subject within a proper and comprehensible compass. In this respect our author has succeeded admirably. Especially is this true with his masterly summary of the diseases of the brain and nervous system. We have not seen in any work so much on this subject in such a small space. But we do not desire to make invidious distinctions. The book is interesting and instructive throughout, and as such we continue to commend it to the earnest student aud the progressive practitioner.

Reports of Societies.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, March 6, 1884.

FORDYCE BARKER, M.D., LL.D., PRESIDENT, IN THE CHAIR.

THE PRESIDENT presented a letter received from Dr. Horace P. Farnham, containing his check for $1,000, donated to the Academy.

On motion by DR. HUBBARD the Academy voted to make

DR. HORACE P. FARNHAM A BENEFACTOR,

and on further motion the thanks of the Academy were extended to Dr. Farnham for his magnificent donation.

The Treasurer of the Board of Trustees, DR. F. A. CASTLE, received the check, and then gave a brief summary of the financial condition of the Academy, in which it was stated that since the last annual meeting he had received donations to the amount of nearly $1,700. He hoped to be able to pay $2,000 on the mortgage on April 1st, next, and thus reduce it to $5,000.

On motion by DR. HUBBARD, the Treasurer of the Board of Trustees was empowered to pay $2,000 on the mortgage on April 1st next, provided that amount be in the treasury.

The Council reported in favor of publishing a volume of "Transactions." The report was adopted.

DR. GEORGE B. FOWLER then read a paper

ON THE DETECTION OF ALBUMEN IN URINE, WITH A REVIEW OF THE METHODS RECENTLY ADVANCED.

After alluding to the fact that the albumen which appears in the urine exists in the blood in the proportion of about nine per cent., the so-called native albumen, or serum albumen, the author of the paper demonstrated how it was precipitated by heat, nitric acid, picric acid, sodium tungstate, potassio-mercuric iodide solutions, etc.

Heat will detect two-tenths per cent. (0.2) of albumen. It is necessary that the urine be nearly neutral, to make it most available, because an excess of either an acid or alkali will, if albumen is present, convert it into a form which heat dissolves. Always apply heat before adding any acid, and if the fluid is entirely coagulated it contains about nine per cent. albumen.

Nitric acid will detect one-tenth per cent. (0.1) of albumen. Dr. Fowler then alluded to the most approved methods of using nitric acid, such as Heller's, allowing the acid to trickle down the side of the test-tube, etc.

Picric acid will detect one-tenth per cent. of albumen (0.1). This test seems to have excited more discussion than any of the others. It has certain drawbacks, however, as the change in color which it produces in the urine, staining the fingers, etc.

The *acidulated brine* of Dr. Roberts was discarded. The *sodium tungstate* test proposed by Dr. Oliver was applied, and the use of Dr. Oliver's compound test-papers demonstrated. This test will detect one-tenth per cent. of albumen (0.1).

The most delicate test was the *potassio-mercuric iodide* solution, which detected one one-hundredth per cent. (0.01) of albumen.

Most of these newest tests will give a reation with other matters, such as the peptones, quinine, etc., and this fact constitutes a serious objection to their use. Dr. Fowler believed in peptonuria, because he had seen it. The objection to these tests on the score of reaction to other substances than albumen he thought was readily overcome by a simple test for peptones, and by inquiry as to whether or not quinine had been taken within a certain number of hours.

He regarded the slightest trace of albumen as of sufficient importance to deserve careful watching, and therefore the real practical value of these delicate tests, at least until it had been settled what the real significance of a trace of albumen in the urine was.

THE PRESIDENT thought it important to know, if possible, exactly what the slight traces of albumen in the urine meant; whether or not they indicated the existence of acute inflammation, or whether or not they were found in the urine of healthy persons, or indicated temporary or permanent kidney lesions.

DR. E. D. HUDSON, JR., said he still held to the older and more simple tests. He thought that the presence of albumen by the ordinary tests should lead to careful microscopical examination of the urine. For ordinary clinical observation, heat and nitric acid were sufficiently accurate, if used with the care and precaution which should always be exercised in their application. A method which he had found exceedingly satisfactory was to raise a few drops of urine in a perfectly clean pipette and then draw additionally in a few drops of nitric acid, when, if albumen was present, the delicate cloud could be seen where the two fluids unite.

DR. GASPAR GRISWOLD thought that the subject should be studied from two standpoints. First the *chemical*, which of course, would decide that that test was the best which detected the smallest quantity of albumen. Second, the *clinical*, and under this head that test should be regarded as best which contained the least number of sources of error, and thus lessened the chances of making mistakes. He spoke at some length with reference to the liability to error in the use of the recent more delicate tests, and had become convinced that, with proper precautions, heat and nitric acid would yield as delicate results as could be obtained by more complicated methods. One essential to a careful examination was a clear urine, which could be obtained by filtering. Then his method of using heat and nitric acid was to take two test-tubes, one containing urine the other an equal quantity of acid, and after boiling one, mix the two fluids slowly, which was done by pouring that of one test-tube into the other.

DR. C. A. DOREMUS spoke with reference to the importance of cleanliness in making all these clinical tests. He suggested the use of meta-phosphoric acid as possibly a more delicate test than any yet employed.

DR. J. P. MUNN, spoke especially of the importance of a properly shaded light for detecting delicate clouds of albumen. His method was to draw down the window-shade fully, swing it away from the bottom of the window, perhaps six inches, and then with a black background upon the wall immediately below the window the light would so strike the test-tube, when held in front of the background, that the most delicate precipitate could be readily seen.

DR. E. A. MAXWELL had used picric acid for two years with very satisfactory results. He had used a saturated solution and adopted Heller's method reversed. He had failed to find peptonuria, and also had regarded the presence of a small quantity of albumen in the urine as of not much significance.

DR. FOWLER, in closing the discussion, said we should not rely upon one test, and further that he believed we are not yet prepared to say how small a quantity of albumen in the urine had no clinical importance.

The Academy then adjourned.

MIXED COLLEGE FACULTIES.—The Kansas City Hospital College of Medicine has a full faculty of regular physicians, and in addition has a chair on homœopathy. Because of this attachment, the Missouri State Board of Health has refused recognition to its graduates. The college has, says the *Medical Age*, accordingly, applied to the Supreme Court for a mandamus, ordering the State Board to show cause why it should decline to register its diplomas. The action of the Supreme Court is awaited with interest.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, February 27, 1884.

JOHN A. WYETH, M.D., PRESIDENT, *pro tem.*, IN THE CHAIR.

DR. W. P. NORTHRUP presented the following

REPORT FROM THE COMMITTEE ON MICROSCOPY

concerning specimens presented by DR. A. JACOBI at the stated meeting held February 13, 1884: "Lungs: Diffuse interstitial pneumonia, peribronchitis, infiltration of the alveolar walls, alveoli generally filled with moderate amount of fibrin with few swollen epithelial cells and pus cells. Liver: marked accumulation of small spheroidal cells about the peripheral veins; liver cells show moderate fatty infiltration. Spleen: Malpighian bodies swollen, congestion, slight increase in connective tissue stroma. Kidneys: cells of convoluted tubules slightly swollen and granular.

DR. F. N. OTIS, on behalf of a candidate, presented a specimen of

CANCER OF THE ŒSOPHAGUS.

DR. GEORGE A. DIXON presented a specimen, accompanied by the following history, furnished by Dr. G. G. Weiss, House Physician at Charity Hospital.

PRIMARY CANCER INVOLVING THE HEAD OF THE PANCREAS WITH SECONDARY DEPOSITS IN THE LIVER.

J. S——, fifty-four years of age, laborer, and a native of Ireland, was admitted into Charity Hospital, November 27, 1883. Family history good. The patient was well up to two years ago, when he had an attack of intermittent fever, which yielded readily to quinine. He resumed work in a week. In September, 1883, while lifting a heavy weight, he strained himself across the abdomen. Two weeks later he began to be troubled with pain in the right hypogastric and epigastric regions, which was dull in character and increased by pressure. Five weeks after the injury he vomited blood, quantity not known. The pain gradually grew more severe, and on account of this he came to the hospital. He said he had lost in weight thirty pounds since the injury. The patient has been a moderate drinker, denies syphilis. On admisson the skin and conjunctivæ were of a dirty yellowish color; mucus membranes pale. Patient much emaciated. Physical examination over lungs revealed emphysema and bronchitis. Heart sounds weak, no murmur detected. There was marked tenderness over the liver, which was of about the normal size. The gall-bladder could not be made out. The spleen was not enlarged. The intestines contained a good deal of gas. The urine, dark-colored, sp. gr. 1.016, contained bile, no albumen, and microscopical examination was negative.

The patient was ordered to remain in bed, and he received tonic treatment with hot fomentations over the abdomen.

December 7th.—Has suffered less from pain and desires to get up. Bowels regular, stools light-colored.

December 14th.—The pain has increased over the liver, the jaundice is more intense, the bowels are very sluggish.

December 20th.—Patient had a severe attack of epistaxis.

On December 22d he was given calomel, grs. x., sodæ bicarb., 3 ss. at night, and Rochelle salts in the morning. The bowels moved freely, stools of a dark brown color. The urine contained a large quantity of bile.

January 5th.—During the past two weeks the patient has failed very much, has vomited frequently and copiously and the matter ejected is of a grayish-black color and quite fluid.

January 9, 1884.—The patient is delirious and vomits frequently; the stools are grayish in color.

The patient died at 6.30 P.M., January 12, 1884.

Autopsy, twenty-four hours after death.—Brain normal. Lungs emphysematous. Heart weighed twelve ounces; hypertrophy and dilatation of left ventricle, right ventricle dilated; valves normal. Spleen weighed four ounces, congested. Kidneys: capsule non-adherent, surface pale and slightly fatty. The mucous membrane of stomach is pale and thickened in places; mucous membrane of duodenum deeply pigmented. The orifice of the common bile-duct is three inches below the pylorus. Just below the opening of the common duct there is an irregularly shaped ulcerated surface, involving the mucous membrane of the duodenum. This surface measures 1½ inch vertically by 2 inches transversely, and on either side of it there is healthy mucous membrane. Corresponding to this space is a tumor which occupies the position of the head of the pancreas. The head of the pancreas has been invaded by a large cancerous mass of the schirrous variety. This mass surrounds the intestine and measures about 2¼ inches in thickness. It is adherent to the aorta behind, and projecting from the left side is the body of the gland, measuring 5 inches in length, which is normal in structure. The liver is normal in size. On its anterior and posterior surfaces are seen a few small yellowish nodules, which are slightly elevated, and have a hard feel. On section through the organ these same nodules are seen here and there. Microscopical examination shows schirrous variety of cancer. The hepatic lobules are distinet, the centres being depressed and pigmented, and their periphery anæmic and containing a large quantity of fat. The hepatic, cystic, and common ducts are enlarged and pervious. At autopsy bile could be easily pressed into the intestine. The gall-bladder contained eight ounces of bile, and was of the same size as specimen now shows.

In connection with this case, Dr. Dixon gave the history of a case which was under his observation while an interne at Bellevue Hospital.

CYSTIC DEGENERATION OF THE PANCREAS.

A man, aged forty-two, was admitted into Ward 17, Bellevue Hospital, October 29, 1877, who had been well and strong up to August 15, 1877, when he was seized with a sudden, severe pain in the epigastric region, accompanied by vomiting, the pain radiating toward the back and right shoulder. The pain lasted all night, but in the morning it passed away. No jaundice followed. On September 29th had a second attack, similar to the first. Was well for one week, when he had a third seizure, only more severe in character. After this did not regain his former health; bowels constipated; and in about ten days noticed jaundice, which followed close upon a feeling he described as "something seemed to burst in his stomach, and he felt as if he was going to die." From this on jaundice steadily increased, with constant nausea. On admission the liver measured about 5½ inches in the axillary line, and attached to liver in about the relation of the gall-bladder was a tumor, being in the epigastric and right hypochondriac regions, moving with the liver during forcible respiration and having a pulsation synchronous with the aorta. The tumor was tender on pressure, and about 4 inches in its transverse diameter. On November 13th this tumor was aspirated and four ounces of a reddish-yellow fluid drawn off, which, after standing, showed a well-marked clot in the centre.

The day following tumor was about one-third its former size. On the second day following the aspiration, the tumor was larger than ever before, measuring 4½ inches transversely and 6¼ inches vertically. The patient vomits constantly, but vomited matter contains no blood-corpuscles. On December 6th it is noted that patient is very deeply jaundiced and very much emaciated. December 17th, was suddenly seized with a sharp pain, like that which he had before, and almost immediately afterward he became unconscious. On examination the tumor could not be found. He died at 3 P.M.

Autopsy.—The liver was about normal in size, showed some increase in connective tissue, was deeply stained with bile, the gall-bladder was full of bile, but not enlarged. The cystic and common ducts were pervious. The stomach was small and its walls thickened, the pyloric end was pushed forward and attached to the side of the larger pancreatic cyst. This pancreatic cyst had thick walls and was partly filled with a bright yellow mucus, the pancreatic duct was found to open into it. This cyst took the place of the head and part of the body of the gland, and would have contained about eight ounces. The small intestines were pushed to the left side. This cyst pressed upon the ductus communis choledochus and occluded it. The tail of the pancreas had also degenerated into a small cyst.

In looking over the literature on these subjects the following points seem worthy of attention: Primary cancer of the head of the pancreas is relatively rare, according to Friedrich. Foerster only saw 6 cases of cancer of pancreas, and all these as secondary growths, in 639 autopsies in all kinds of disease (quoted by Friedrich in "Ziemssen"). Dr. Norman Moore, however, in "St. Bartholomew's Hospital Reports," vol. xvii., 1881, says that in 39 cases of cancer of pancreas the new growth was probably primary in 15 cases. Friedrich and Bartholow both speak of tumor being absent on physical examination in a large proportion of cases of cancer of pancreas. Da Costa appreciated a tumor in only 13 out of 37 cases. Bigs found a tumor in only 4 out of 15 cases. Dr. Norman Moore does not speak of a tumor being felt in any of his cases. Jaundice is a common symptom of this trouble, and in Dr. Moore's cases where the cancer was primary jaundice was always present. In 24 cases of secondary growth tabulated by Dr. M., jaundice was present in only 7 of the cases. Murchison mentions persistent jaundice, pain in pancreatic region, and a sensible tumor as the symptoms of cancer of pancreas. In two of the cases described by Dr. Moore, the occluslion of this common duct was due to the pressure of the tumor at head of pancreas, as in the specimen before you. Friedrich and Bartholow speak of a tumor being often found in cystic degeneration of pancreas. In the specimen before you *no* tumor was felt during life, although carefully searched for, and vomiting did not occur until toward the close of life, whereas in the case of cystic degeneration a tumor was observed on admission and vomiting was an early symptom and was very obstinate in character. In both cases jaundice was intense.

TUBERCULOSIS TESTIS.

Dr. John A. Wyeth presented the left testicle of a patient, twenty-seven years of age, who gave a history of a slowly developing inflammation during the last two years, but not the result of traumatism. There was no history of syphilis. There was a history of tubercular predispostion. There was a general broken-down condition of the testicle, and at two or three points ulceration had occurred, and there was pus in the tunica vaginalis, possibly extending into the substance of the testicle. There was no positive diagnosis of tubercle in any other part of the body, although his temperature was the varying temperature of phthisis. Dr. Wyeth regarded it as a case of tubercular testicle from the physical signs, from the family history of the patient, and from the peculiar temperature. At all events there was not sufficient inflammatory action in the organ itself to account for the temperature, and fearing general inoculation, he suggested that the testicle should be removed, and the patient consented to have the operation performed. Concerning the operation itself there was nothing specially noticeable. His rule is to transfix the cord high up, close to the external ring, separate the vas deferens, and, if necessary, tie its artery, and then tie all arteries, nerves, and veins together with a double, strong catgut ligature.

Dr. F. N. Otis thought the history of the case was clear, and there seemed to be no doubt concerning the propriety of the operation. He had seen a number of cases of tubercular testicle develop, apparently in consequence of great irritation of the genito-urinary apparatus. One case in particular developed in the course of spinal difficulty obscure in its origin, and gave its first evidence through frequent, painless micturition. Finally cystitis developed. After a period of a year or more there was evidence of calculus material passing, but on examination of the bladder no stone was found, notwithstanding a perineal opening was made for the purpose of determining whether or not vesical calculus existed. Finally the testicle began to swell and suppuration took place at one or two points, and it soon became evident that the disease was tuberculous in character. The case went on and death afterward occurred from rupture of a spinal abscess, the disease of the spine being discovered only a few months before the fatal termination. The autopsy showed tubercular condition of both testicles and also deposits in the kidney. There was no tubercular deposit in the lungs or other parts of the body.

Dr. Ripley asked Dr. Wyeth what he understood by the varying temperature of phthisis.

Dr. Wyeth replied such a temperature as ordinarily accompanies hectic, with an afternoon rise—in this case to 103° F.

Dr. Ripley thought 103° F. a high temperature for local disease of the testicle.

Dr. Gerster said he had observed quite a number of cases of tuberculosis testis, in some of which the temperature rose occasionally to 105° F., accompanied with severe chills and profuse sweating, and in one or two cases the lungs also were affected. But he had presented to the Society three specimens removed from patients in whom no pulmonary lesion could be made out by physical examination, and yet the temperature was high, and fell from the moment the operation was performed.

Dr. Wyeth said there was sufficient suppuration in his case to account for a temperature of 100° F., but, without the constitutional tendency, not sufficient to account for a temperature of 103° F. Another point to which he wished to draw attention was the advisability of early operation in these cases. Moreover, he regarded it as important to remove all of the scrotum which the man could spare, that is, all that part which has been involved in either the suppurative, tubercular, or inflammatory process.

Dr. Ripley said that in those cases in which the testicle is actually inflamed and swollen a comparatively high temperature was likely to occur, but where the disease has existed for some time, often with rupture and discharge of pus, he thought that 103° F. was an unusually high temperature, unless there is some other organ involved.

Dr. Gerster said one word of explanation in connection with his cases was due to Dr. Ripley, and that was, he had observed the high temperature only in those cases of tuberculous testicle where actual breaking down of the tubercular deposit was going on, although there was no perforation. So long as the process of disintegration of the deposit with the chemical changes incident thereto were not present there was no high temperature.

Dr. Ripley remarked that absence of perforation gave rise to confined pus, and in that way might account for the rise of temperature.

Dr. Levi said the question of temperature was an important one, and referred to the conclusions of Dr. Milton Fox, who insists upon temperature as one of the strongest features in these cases. Not so very high, but a rather low temperature, yet continued for a long time. He was rather surprised to hear of a temperature of 103° F. in Dr. Wyeth's case, and perhaps that might have been due, as Dr. Gerster had explained, to the fact that absorption was taking place. He asked Dr. Wyeth what the condition of the cord was above the epididymis.

Dr. Wyeth replied that it was intact.

The specimen was referred to the Committee on Microscopy.

ANGIOMA OF THE LIP.

DR. A. G. GERSTER presented a specimen removed from a man, thirty-one years of age, whose under lip Professor Kœnig, of Göttingen, excised for angioma thirteen years ago. The patient alleged that the tumor was about the size of a large hazel-nut, and that the cicatrix remained firm for ten years. The disease began to recur about three years ago, increased in size to that of an egg, and finally the patient came under Dr. Gerster's care in the German Hospital, where he performed an operation for its removal.

The specimen was of interest as showing the possible recurrence of this otherwise non-malignant disease after the lapse of ten years. As regards excision, it was sufficient to say that it was somewhat difficult on account of the hemorrhage, but the wound healed by first intention. To make up for the loss of the lower lip, an additional plastic procedure was resorted to.

Microscopically the tumor was a cavernoma, that is, had a stroma of connective tissue which was permeated by large irregularly shaped veins.

DR. WYETH regarded the specimen as unusually interesting, from the fact that latterly he had performed some operations for the removal of these angiomata, whether arterial, cavernous, or capillary, which did not meet with general favor. He had removed three from the face; one from the forehead, one from the nose, and one from below the left eye, all being something more than one inch in length. All were of the capillary variety; that is, the step between cirsoid aneurism and the cavernous tumor.

His mode of procedure was to cut directly down through the skin and tissues to the bone, holding a sponge on the parts, without styptic, and then pass silk ligatures directly through and bring the tumor together. In two cases he got union by first intention and in the third case partial union. The deformity was removed in all the cases and the cicatrix was almost imperceptible.

DR. GERSTER had seen recurrence only in cases where apparently the growth was not entirely destroyed, the operator using the galvano-cautery. He believed it to be essential to remove by some means everything belonging to the tumor. The growth in his case did not pulsate so as to be visible, although pulsations in the deeply seated arteries could be felt distinctly.

The Society then went into executive session.

THE INFLUENCE OF LARGE QUANTITIES OF WATER UPON FEVER.—Dr. Wilischanin (*Centralbl. für die Med. Wiss.*, September 22, 1883), says that dogs, made feverish by the injection of putrefying defibrinized blood, were artificially fed with large quantities of warm water, their weight and bodily temperature being carefully noted. The following were the results obtained by Dr. Wilischanin: 1. The temperature fell under the influence of the inhibition of large quantities of water. 2. The deprivation of water in the later stages of the fever had also the effect of lowering the temperature. 3. The animals became dull and sleepy under its effects. 4. The appetite increased under the administration of larger quantities of water. 5. The deprivation of water induced a diminution of bodily weight. In animals kept without water during the febrile state, granular degeneration of the kidneys, liver, and heart was found to a greater extent than in those supplied with excess of water. Of these organs, the liver most frequently had undergone this change. In some cases, the lesion was so far advanced as to have extended to the nuclei of the cells, which were themselves atrophied. The heart was least affected, the change having only effected an obliteration of transverse striæ of the muscular fibres.

Army and Navy News.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, United States Army, from March 2, 1884, to March 8, 1884.

PERIN, GLOVER, Lieutenant-Colonel and Surgeon, Medical Director, Department of Dakota. Leave of absence extended twenty days. S. O. 23, Headquarters, Division of the Missouri, March 5, 1884.

BACHE, DALLAS, Major and Surgeon. Leave of absence extended seven days. S. O. 43, par. 1, Headquarters, Department of the East, March 5, 1884.

BILL, J. H., Major and Surgeon. Granted leave of absence for one month. S. O. 20, par. 1, Headquarters, Department of the Platte, March 3, 1884.

BAILY, J. C., Major and Surgeon. Granted leave of absence for one month, to take effect on or about March 1, 1884, with permission to apply to the Adjutant-General of the army, through Division Headquarters, for an extension of three months. S. O. 24, Headquarters, Department of Texas, February 26, 1884.

STEPHENSON, WILLIAM, First Lieutenant and Assistant-Surgeon. Ordered to Fort Niobrara, Neb., for temporary duty, on completion of which to return to his station, Fort Omaha, Neb. S. O. 20, par. 4, Headquarters, Department of the Platte, March 3, 1884.

FISHER, WALTER W. R., and POLHEMUS, ADRIAN S., First Lieutenants and Assistant-Surgeons. Assigned to duty in Department of California. S. O. 55, par. 4, A. G. O., March 6, 1884.

STEPHENSON, WILLIAM; BORDEN, WILLIAM C., and CHAPIN, ALONZO R., First Lieutenants and Assistant-Surgeons. Assigned to duty in the Department of the Platte. S. O. 55, par. 4, A. G. O., March 6, 1884.

ROBERTSON, REUBEN L., and EDIE, GUY L., First Lieutenants and Assistant-Surgeons. Assigned to duty in Department of Texas. S. O. 55, par. 4, A. G. O., March 6, 1884.

CROSBY, WILLIAM D., First Lieutenant and Assistant-Surgeon. Assigned to duty in Department of Arizona. S. O. 55, par. 4, A. G. O., March 6, 1884.

GANDY, CHARLES M., First Lieutenant and Assistant-Surgeon. Assigned to duty in the Department of the East. S. O. 55, par. 4, A. G. O., March 6, 1884.

PILCHER, JAMES E., First Lieutenant and Assistant-Surgeon. Assigned to duty in Department of Dakota. S. O. 55, par. 4, A. G. O., March 6, 1884.

FISHER, WALTER W. R., First Lieutenant and Assistant-Surgeon. Assigned to duty at the Presidio of San Francisco, Cal., from 18th inst. S. O. 23, pars. 1 and 2, Headquarters, Department of California, February 21, 1884.

POLHEMUS, A. S., First Lieutenant and Assistant-Surgeon. Assigned to duty at Fort Winfield Scott, Cal., from 18th inst. S. O. 23, pars. 1 and 2, Headquarters, Department of California, February 21, 1884.

PHILLIPS, JOHN L., First Lieutenant and Assistant-Surgeon. Assigned to temporary duty at Fort Warren, Mass. S. O. 39, par. 2, Headquarters, Department of the East, February 28, 1884.

BENHAM, R. B., First Lieutenant and Assistant-Surgeon. Relieved from duty at Fort A. Lincoln, D. T., and ordered to Fort Sisseton, D. T., for duty. S. O. 22, par. 1, Headquarters, Department of Dakota, February 26, 1884.

Changes in the Medical Corps, U.S.N., for the week ending March 8, 1884.

AMES, H. E., Passed Assistant Surgeon. From the Colorado, and ordered to the Greeley Relief Steamer, Bear.

Medical Items.

CONTAGIOUS DISEASES—WEEKLY STATEMENT.—Report of cases and deaths from contagious diseases reported to the Sanitary Bureau, Health Department, for the week ending March 11, 1884:

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Cases.								
March 4, 1884.....	0	10	78	3	41	35	0	0
March 11, 1884.....	3	11	69	5	44	44	0	0
Deaths.								
March 4, 1884.....	0	7	19	3	4	21	0	0
March 11, 1884.....	0	6	8	7	5	21	0	0

AMERICAN VETERINARY COLLEGE.—Samuel Marsh, Esq., as President of the American Veterinary College, writes: "In your issue of February 16, 1884, page 196, appears an article under the title 'New York College of Veterinary Surgeons.' In said article 'Peter Peters, Veterinary Surgeon, writes,' etc. As we know your journal as one that always respects the rights of educational institutions, and of individuals, we desire through your columns, to correct certain misstatements and perversions of the truth made by your above-named correspondent. The Faculty of the New York College of Veterinary Surgeons, 'who organized the American Veterinary College in 1875,' resigned in a body from the first named college in 1875; *they were not 'discharged.'* The several 'professors who organized the Columbia Veterinary College in 1878,' resigned from the New York College of Veterinary Surgeons; *they were not 'discharged'* by the trustees of the latter college. That 'the New York College of Veterinary Surgeons is the only college in this State having the authority to grant the degree of Veterinary Surgeon' is not gainsaid; the American Veterinary College is now the only college in this State having the authority to grant the degree of 'Doctor of Veterinary Surgery.' The American Veterinary College and the Columbia Veterinary College were chartered and incorporated under the general laws of the State of New York, viz., under an act of 1848, and the amendments of the same under an act of 1870; the latter has since been confirmed by an act of 1882. The general law and the amendments thereof provide for the incorporation of 'scientific and literary colleges and universities.'"

INTESTINES IN THE CHEST.—Dr. C. G. Davis, of Milford, Mich., reports (*Medical Age*) the history of a man, aged thirty-seven, who, after suffering from ague and other troubles, finally died of septicæmia. A post-mortem made in the presence of Drs. Dallas Warren and Robert Johnson revealed a very dilated stomach, enlarged liver and spleen. Dr. Davis says: "The intestines were the next organs to look for, and by following the pyloric end of the stomach I found it turned upward against the diaphragm, through which I made an opening with the scalpel, and introducing my hand, found the intestines all in the left chest, under the lung and about the heart, resting upon the diaphragm, an opening of about one and a half inch in diameter through the diaphragm, near its left attachment, allowing a passage for the descending colon down to the rectum. The mesenteric glands were found enlarged and filled with deposits of pus, doubtless of pyæmic origin. The left lung was about one-third as large as the right, and divided into five irregular-shaped lobes. Both lungs appeared healthy as to their parenchyma. There were no adhesions of either intestines or the lung to the pleura in the left cavity; some were found on the right side, but they were not extensive. Peritoneum healthy and continuous through the opening in the diaphragm where the colon passed out of the chest. The deformity of the lungs, the misplacement of the bowels and kidneys, must have existed from birth, and were not the result of hernia, as some may be inclined to believe."

A MODIFICATION OF RICORD'S METHOD OF OPERATING FOR VARICOCELE.—Dr. Deaderick, of Knoxville, Tenn., referring to a recent article in THE RECORD, upon a method of operating for varicocele by ligating the veins subcutaneously, and fastening the ligatures to a metal plate, says: "It occurs to me that this method is open to more objections than a method which I employ. I make use of Ricord's operation, except that instead of fastening the two ends of the subcutaneous ligature to buttons or plates on each side of the scrotum, I fasten them to the ends of a U-shaped steel spring. This spring is made of small steel wire curled upon itself, and bent in the shape of a letter U. In this way the amount of tension on the ligature is under one's control, and there is nothing pressing against the scrotum, interfering with the exudation of serum from the needle punctures. With this improvement, it is hard to conceive of a more efficient or perfect mode of operating upon varicocele."

THE AMERICAN VETERINARY COLLEGE held its ninth annual commencement on March 4th. Samuel Marsh, President of the Board of Trustees, conferred the degree of D. V. S. upon the twenty-two members of the graduating class, and this ceremony was followed by the presenting of various prizes for excellence in different branches of study during the year. The valedictory was delivered by Hamilton Vreeland, and an address was delivered by the Rev. Dr. John P. Newman.

"LE MONITEUR DE LA POLICLINIQUE" (French, of course) calls the leading medical journal of this country a "red-skinned, Yankee cocanut, without education, without wit, without intelligence." How truly is a prophet not without honor save in his own country! *Le Moniteur*, etc., is educated, witty, and intelligent—doubtless as education, wit, and intelligence go in France.—*Medical Age.*

THE CONSTITUTIONALITY OF QUARANTINE FEES.—The Supreme Court of the State of Louisiana has decided that the State law requiring all vessels touching at New Orleans to pay certain quarantine fees is just, and that it does not infringe on the power of Congress to regulate commerce. The suit was entered by the "Morgan Company," to perpetually enjoin the collection of the fees now demanded by the resident physician at the Mississippi Quarantine Station from all vessels entering the port of New Orleans.

THE TREATMENT OF INSANITY AT HIGH ALTITUDES.—It is asserted by certain English physicians that the high, dry, and cold air of St. Moritz has remarkable curative powers as regards insanity. A movement is on foot to establish a sanitarium for mental invalids in that locality.

DRUG FARMS FOR YOUNG DOCTORS.—Dr. L. D. Morse, of San Mateo, Cal., writing upon the above subject, says that he doubts if it is practicable for young or old physicians, individually, to undertake the expense and special care necessary for raising medicinal herbs, etc. He thinks, however, that more of the drugs now imported should be raised in this country, and he states that an association has been formed in California to undertake the cultivation of a drug farm. He writes: "In many of the interior valleys of California, rhubarb may be grown, probably of as good quality as is produced anywhere else in the world. So also, ipecacuanha, ginger, and a score of other valuable drugs now imported. Vanilla beans can, undoubtedly, be grown here. Even if the best varieties should be grown under glass, artificial heat would not be needed, and the high price they command would yield profitable results. Licorice is already quite successfully grown in at least one locality in this State. In the experimental grounds of the State

University, at Berkeley, cinchona trees are growing. They are not considered really successful, but there are other localities in the State with climate and soil quite different, where they may prove quite successful. The camphor tree at Berkeley, I believe, promises very well.

PLACENTA PRÆVIA—FORCED DELIVERY—LACERATION OF CERVIX—SEPTIC FEVER—RECOVERY.—Dr. G. F. Cleveland, of Le Roy, N. Y., sends us the following instructive history: "Mrs. P——, aged twenty-five, multipara (I delivered her of her first child about two years since), called on me, October 2d, to say that she was again six and a half months advanced in pregnancy, and that for the last six weeks she had been annoyed by spells of bleeding, but that she had not bled any for about a week. I advised her to return home (four and a half miles in the country), to remain very quiet, and by no means to ride to town again, but to send for me at once if severe bleeding should occur. October 9th, husband came for me in great haste, saying his wife had been feeling quite well up to noon of that day, when she was suddenly taken with flowing, and had bled so rapidly that he feared she would die before I could get there. I arrived at the house about 4 P.M., found my patient lying on her back, countenance as pallid as death, lips and tongue entirely bloodless, with but a faint flutter of pulse at the wrist, too feeble to be counted, everything about her saturated with blood; in fact she was lying in a pool of blood up to her shoulders. It was very evident that what was to be done must be quickly done, or my patient would expire before my eyes. Administered one drachm of the fluid extract of ergot with half an ounce of brandy, and proceeded at once to examine the condition of the uterus. Found the os dilated to about the size of an ordinary door-knob, which is, I think, about seven inches in circumference; it was not rigid, but decidedly soft and flabby, and was entirely filled by placenta, which seemed to be firmly adherent at all points, for in whatever direction I would press my finger to gain an entrance to the womb I would tear up adherent placenta, and the hot blood would gush into my hand. I saw that my patient was rapidly sinking, and as the os was so dilatable I determined to force a delivery and rid the womb of its contents. Accordingly I let my patient inhale a little chloroform, and after well oiling the back of my hand, passed it into the vagina, and by gentle pressure worked it through the os, through the placenta, and into the cavity of the uterus, ruptured the membranes, found the head presenting, passed my hand further on and grasped the feet, turned the child and brought down the feet. But here I met with an obstruction—my hand, which had readily passed into the uterus, was now enlarged by holding the feet, so that the os refused to let it pass out. At this time I could not see that my patient was breathing, in fact, she had every appearance of being lifeless. On making a little more traction I felt the cervix give way and tear over the back of my hand, like wetted paper. I then brought into the world a living child, and turned my attention at once to the mother, ordered the husband to pour half an ounce of brandy between her teeth, and I began to manipulate the chest after the manner of Marshall Hall. In a short time she opened her eyes, swallowed the brandy, drew a long inspiration, and said she was 'all right,' a statement, by the way, which I at the time very much doubted. I then removed all the fragments of torn placenta, put firm pressure over the uterus, and gave another dose of ergot and brandy. All hemorrhage ceased, and a half-hour later patient was, as she said, 'feeling quite comfortable.'" The patient subsequently had a septic fever, from which she made a satisfactory recovery.

TREATMENT OF CORNEAL OPACITIES.—Dr. Michel recommends sulphate of cadmium, of the strength of two and a half grains to the ounce of mucilage, as an application to opacities of the cornea. A camel's-hair brush, dipped in this wash, is applied to the centre of the spot and retained in contact with it for a few seconds. At first the application is made once a day, but after a while is repeated two or three times in the twenty-four hours. When the pain grows less, the strength of the solution may be increased to five grains or even seven grains to the ounce. When the opacity is of recent formation it rapidly disappears under this treatment, but when it is of old date the applications must be long continued.—*The Practitioner*, January, 1884.

BUSINESS LIFE.—It is, unfortunately, one of the chief characteristics of modern business to be always in a hurry. In olden times it was different. Business of all kinds was carried on with much deliberation, and nothing was gained, or supposed to be gained, by that sort of high-pressure work which consists in being perpetually and impetuously hasteful. The habit of haste—for it is a habit—is actively cultivated in the city of London, and in all places and circles which follow the fashion "the city" has set. The moment a lad takes his seat on a stool before the lowest desk of a house of business, he begins to make-believe to others, and too quickly to himself, that he is overwhelmed with work. Merchants and managers require this farce to be played by everyone in their establishments, from the heads of departments to the youngest boy on the staff. The result is the formation of a "mental habit" of hurrying, which before long becomes the keynote and motive of the whole life. It is the custom to write and speak as though commercial men were really as much pressed for time as they appear to be; and wholesome, but not very intelligent, counsel is offered to the effect that it would be better to "get up a little earlier," and to do this and avoid that, with the view of preventing the physicial dangers and evils which result from "running to catch trains," "eating hasty luncheons," and the like. Now the simple fact is, that all this haste and turmoil, prejudicial and often ruinous as it is, is artificial. If a "man of business" were to rise at five o'clock every morning, and "his train" left at 8.30, he would from habit avoid leaving his house until too late to enable him to "catch" it comfortably. It would discredit his position and look *unbusiness-like* not to be in a hurry. So, in the selection of a train by which to travel, he always chooses one that arrives with barely time for him to reach his place of business at the hour appointed. It would ruin him in the eyes of the city, and be wholly opposed to his mental habit to go by an earlier train, and *saunter* to his office. The inference in business circles would be that he had little or nothing to do. The same habit runs through the life of the typical man of commerce. He likes to look and feel full of restrained yet bursting energy, and in his calmest moments to be so pressed that if he were less capable than he is he must be distraught. This affectation of suppressed force is the bane of city life. It is this that does so much harm to the nervous system. We sometimes see a locomotive standing waiting to start an express train; the steam is up to the highest pressure; the engineer must blow it off every few minutes, or the boiler would burst. This is a good simile for the man of business as we see him in London, and as he tries to be, or appears, in the provinces. The old merchants of London, who, nevertheless, amassed large fortunes and founded great families, were wont to stand at their doors in Cheapside and the leading thoroughfares, and were never in a hurry. What would be thought of anyone who dared to seem leisurely to-day? If those who furnish the "city men" of to-day with medical counsel would go right down to the bottom of things and try to cure the evil of this mental habit, they would do far more to prevent the spread of nervous diseases, and to arrest the thousand-and-one troubles of body and mind which spring from work and high pressure, and hurry, worry, and waste of energy, than by dealing in detail with particular forms and fruits of this evil, as is their wont.—*London Lancet*

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PRACTICAL HINTS REGARDING THE METHODS OF EXAMINATION EMPLOYED AS AIDS IN THE DIAGNOSIS OF NERVOUS DISEASES.[1]

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THE advances which have been made within the past ten years in our knowledge of nervous affections probably exceed those made in any other department of medical science.

The more progressive practitioners are keenly alive to the importance of this branch, but they realize, as well, the difficulties which it presents to those not thoroughly acquainted with the anatomy and physiology of the nervous mechanism.

It is not uncommon with neurologists to hear expressions like the following from medical men of intelligence and candor on all sides: "I would like, doctor, to study the cases of nervous disease which I meet more scientifically than I now feel myself able to do; but I am ignorant of how to proceed in the examination, and more or less uncertain as to the basis of my conclusions."

Again, others say with equal candor: "I feel, doctor, that the text-books upon nervous affections abound in pictures of instruments employed in diagnosis, such as batteries, thermo-electric apparatus, galvanometers, æsthesiometers, dynamometers, dynamographs, etc., but they are scanty in the descriptions of the uses of these instruments and their value in diagnosis. I presume that it is impossible to correctly interpret the various phenomena of nervous affections without these costly appliances, so I am often forced to guess at the disease and let it go at that."

Finally, the majority of practitioners apparently join in the feeling (which happily conduces largely to the pecuniary benefit of specialists in neurology) that nervous anatomy and physiology is "too complex a subject for them to master," and that they must be, therefore, given over to those who are devoting themselves particularly to the department of nervous diseases.

Now, I believe that it is not only possible but comparatively easy for any medical man (who is willing to make the effort) to grasp certain general principles which are applicable to the examination of cases afflicted with nervous diseases.

These can be carried out without expensive apparatus and with decided benefit both to himself and his patients. They will tend to render his diagnosis decidedly more scientific and certainly more accurate. They will aid him in properly directing his treatment. Finally, they will often save him the humiliation of seeing his patient seek advice from other hands.

The intelligence of laymen is always strongly impressed by evidences on the part of a physician of great care and marked skill, as shown in the first examination. The impressions left upon the patient's mind by the results of the first interview are of the greatest importance to both parties. While the doctor is studying the patient, the patient is, as a rule, studying the doctor with even greater interest.

Every step which is taken by the physician, as a means of forming a positive and final judgment, is watched with an earnestness on the part of the patient that invariably accompanies mental anxiety. Each question that is asked regarding the previous history of the patient, the possibility of similar troubles in his parents or blood-relations, the origin and course of the more important symptoms, etc., are even more indelibly impressed upon the mind of the patient than upon that of the physician, who keeps the written record.

When, later in the examination, the power or electrical reactions of the muscles and the sensibility of different regions of the body are being tested in various ways, and the results of such tests are being recorded in the case-book of the physician, the reasoning faculties of the patient are even more keenly alive and seek to penetrate (as far as his intelligence will permit him to do) into the mysteries of the science, and to draw conclusions regarding the clinical significance of certain symptoms, of which, perhaps, he was unconscious up to that time. It will often be necessary, therefore, for the physician to quiet evidences of alarm on the part of the patient, from time to time, as the examination of the symptoms proceed, by judicious explanations or words of encouragement.

It should ever be remembered by the physician that any omission on his part to investigate the condition of the motor or sensory nerves, the pulse, the respiration, the temperature, the spinal reflexes, etc., in each and every case will sooner or later be remarked by some patient, who has either read extensively or had, from time to time, different medical advisers. Besides, interested friends (sometimes very intelligent from past experiences of their own) may often drop hints to the patient which will tend to strengthen or weaken his or her views that have previously been formed of the accuracy and care of the first examination of the symptoms.

There is, furthermore, a moral, as well as a sordid and personal view of the situation. This is well expressed by a quotation, employed as a text by a late author. It is as follows:

"When a patient places confidence in a member of the profession, puts his life, or his health, the prospects of himself, and may be those of his wife and children, in his hands, the least he, in turn, can do is to meet him with common honesty. If he is not entirely deserving of the confidence reposed in him, let him try to be worthy of it by doing his best. How much, however, does 'doing his best' involve? It involves all that lies in his power; each man to the very best of his ability. 'For unto whomsoever much is given, of him shall much be required.' 'Doing his best' is takin all possible pains, which includes such information as may be attainable. Avoidable ignorance is not a worthy return for confidence."

It is my object, in presenting this article before the medical profession, to give, with some detail, the description of the various steps that are commonly employed by specialists in neurology in the examination of their patients; and to suggest a simple method of recording symptoms, as a basis for the diagnosis and subsequent treatment of nervous affections.

[1] This article comprises, in substance, the subject-matter of a course of lectures delivered by the author before a private class of post-graduate students.

I shall discuss the subject under the following heads:

First.—The clinical history of the patient, and how to record the chief symptoms of each case.

Second.—The symptoms revealed to the physician by his sense of sight.

Third.—The symptoms revealed to the physician by instruments of various kinds and other tests.

As the aim of the article is to interest and possibly instruct those members of the profession who are attracted toward but not thoroughly familiar with the department of neurology, the author need not apologize for the insertion of much that is old and little that is new to the specialist in this branch.

THE CLINICAL HISTORY OF THE PATIENT.

Every physician should be provided with a case-book. In it the main features of each patient's case should be first recorded, and a memorandum of the treatment and modifications of the symptoms should be subsequently jotted down at each visit. In this way only can the results of an extended experience be made useful for scientific purposes at some later date. It will furthermore aid the doctor in utilizing his leisure hours by studying the cases which he meets during the busy routine of his office work. One case well studied is worth a hundred casually glanced at and hastily prescribed for.

It will help to economize time if the case-book is printed in such a way as to have the more important symptoms already upon the page; spaces being left blank to allow of a record of any modifications of these that may exist. This plan adds to the legibility of the notes, and also admirably adapts them for comparison with those of previous or subsequent cases. Each physician may alter the arrangement of the pages of his case-book to suit his individual practice, but it is best for a general practitioner to have it adapted for all classes of patients. Such a one is now published and offered for sale among the profession at large.

In a subsequent portion of this article I will suggest a form of case-book which seems to me to be well adapted to the requirements of a specialist in nervous diseases.

Let us now suppose that a patient enters the office of a physician for medical advice relating to a nervous malady. After the usual questions to the patient regarding the name, the age, the condition as to marriage, the nationality, and the occupation have been asked and the answers recorded, the patient should be brought rapidly to a concise statement of the more important symptoms for which he seeks medical relief. This can be usually accomplished by a little tact; and much valuable time is saved by so doing. These symptoms can then be recorded.

With these especially marked symptoms as a starting-point, questions may then be asked regarding certain of them which the physician deems the most important from a clinical aspect, seeking in each instance to learn all about the present and past history of one symptom at a time, and the modifications which have been observed concerning it, so far as the patient's memory will prove of assistance.

Now, the ability on the part of the doctor to ask questions that are pertinent to each symptom will depend entirely upon the knowledge which he himself possesses of the subject. I have often tested medical students and young practitioners in this regard, and have been amused to see how rapidly their stock of pertinent inquiries became exhausted.

In order to intelligently ask about pain, for example, the physician must know all the axioms of nerve-distribution, which Hilton so ably advanced; he must be a master, in the second place, of the course of the separate nerves that enable definite regions to tell the doctor (by the presence of the sense of pain) of disease that is sometimes far remote from the painful area; again, he must be able to correctly trace the course of affected nerves, and thus to seek for abnormal conditions along the line of each nerve which might produce local pressure upon them; he must be familiar, in the fourth place, with the individual peculiarities of pain in special diseases, as, for example, the characteristic pains of rheumatism, neuralgia, locomotor ataxia, etc.; finally, he must be familiar with all the possible causes of pain in different regions of the body or extremities.

When we shall have discussed the various symptoms revealed by inspection of the patient, as well as the tests employed to determine abnormal states of the motor or sensory nerves, and the reactions of muscles to different electric currents, many points will have been given that may prove of assistance in suggesting pertinent questions, to be employed in obtaining the clinical history of patients so afflicted; but it will require continued practice, much study, and close observation to excel in the art of quickly and accurately gathering pertinent facts, from which conclusions can be drawn regarding the diagnosis and treatment of nervous diseases.

Duration of Existing Symptoms.—It is important to ascertain the exact date of the commencement of the symptoms for which the patient seeks relief, or of others which may be detected by the physician at the first interview. This will often decide as to the acuteness of the attack, and also afford in some instances information respecting the seat of the disease. In the chronic varieties of spinal disease (as, for example, progressive muscular atrophy, locomotor ataxia, disseminated sclerosis, etc.), the patient cannot, as a rule, fix the date at which the symptoms commenced, because the development has been extremely slow and gradual. On the other hand, a hysterical fit may be followed immediately by an attack of hysterical paralysis; a hemorrhage into the brain or spinal cord, that has ploughed up the substance of these organs, causes paralytic symptoms that develop instantly; inflammatory changes of the brain or cord cause a more gradual onset, although it may be comparatively rapid. As an illustration of the clinical bearing of the duration of symptoms, let us take the following illustration: Two patients present a deformed hand from atrophy of the muscles of the thumb and the interossei. The one has been slowly developed, and is probably the result of progressive muscular atrophy; the other has been very rapidly developed, and is probably due to some disease or local injury of the ulnar nerve. Should it have occurred in years past, and have shown no evidences of steady progression, the existence of progressive muscular atrophy could be then safely excluded.

The Exciting Cause of Existing Symptoms.—If there has been any external violence received, it is important to ascertain the exact nature, seat, and severity of the injury. Concussion of the spine may cause severe and often fatal disease of the spinal cord. Violence to the head may depress the inner tablet of the skull without any evidence of depression upon the exterior. The brain may be seriously injured, when the bones that encase it may escape. Some of the spinal nerves may be implicated in a wound or bruise, and thus paralysis may be induced independently of the nerve-centres.

The Age of the Patient.—Much may be suggested to the mind of the physician by the age of the patient, because some diseases are more common at one period of life than at another.

During early childhood we are particularly liable to encounter the symptoms of idiocy, epilepsy, and chorea, as well as those of an inflammation of the anterior horns of the gray matter of the spinal cord, the so-called "poliomyelitis anterior." The acute variety of the latter disease is most common between the ages of one and four, and it is seldom developed except in childhood. In the vast majority of cases, the condition termed "pseudo-hypertrophic paralysis," because the muscles are overgrown like those of an athlete, is developed during the first few years of life. Again, the tubercular form of inflammation of the meninges, both of the brain and spinal cord, occur in the young child. Among the rarer forms

of disease of the spinal cord, a congenital variety of the so-called "spastic paralysis," and also of "locomotor ataxia," is encountered in young children. Reflex paraplegia is also occasionally seen in very young subjects. Cases of disseminated sclerosis of the spinal cord have been reported in the child.

Between the ages of puberty and the fully developed adult, Pott's disease of the vertebra may develop and create compression of the spinal cord; and attacks of rheumatism may render the development of embolic hemiplegia and aphasia possible. Meningitis of the brain and spinal cord are not uncommon during this interval. Hysterical paraplegia occurs in young females in connection with uterine disturbances. Between the ages of twenty and thirty cerebro-spinal sclerosis is commonly developed.

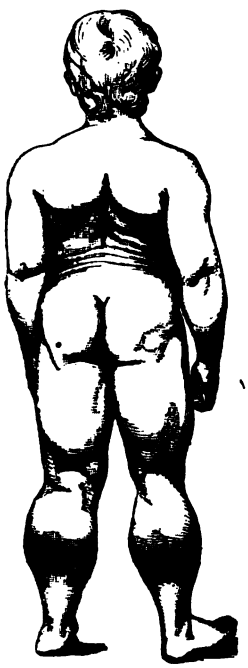

FIG. 1.—Pseudo-Hypertrophic Paralysis (Duchenne).

FIG. 2.—Infantile Paralysis, or Poliomyelitis.

In the adult, progressive muscular atrophy, myelitis, meningitis of the cord, locomotor ataxia, the chronic form of poliomyelitis, and amyotrophic lateral paralysis are among the spinal diseases often encountered. Cerebral meningitis, and softening, tumors, and embolism of the brain, are frequently recognized. Shaking palsy seldom occurs except in advanced life. The symptoms of Duchenne's disease, and the paralysis of the insane are most commonly developed between the ages of thirty and sixty.

Linked with adult life comes, also, apoplexy associated with paralysis; and a late rigidity of the paralyzed muscles is developed if the injury excites a descending degeneration of the fibres that are torn across by escaping blood. Excessive indulgence in eating and drinking, coupled with the absence of proper physical exercise, and the possibility of acquired syphilis, render males more subject to paralysis than females.

THE SEX.—Males suffer much more frequently from organic nervous affections than females. This fact is to be accounted for partly by the liability of that sex to injury, exposure to cold or dampness, and excessive mental or physical labor. But habits of indulgence in alcohol and venery, with its danger of syphilitic infection, are also far more common in males than in females, and are often prominent factors in the causation of morbid conditions of the nerve-centres. Certain occupations, tending toward great muscular strain, or lead, arsenic, and mercurial poisoning, may be exciting causes of serious nervous affections. Prolonged exposure to compressed air (as in the case of divers) is often followed by paralysis. Many such cases have occurred among workmen in submarine excavations.

THE HEREDITY.—Having exhausted the special lines of inquiry indicated by the prominent symptoms that each patient seeks relief for, questions should then be propounded to the patient touching upon the possibility of hereditary predisposition to nervous affections or of some hereditary "diathesis."

Some nervous affections exhibit a marked dependence upon a hereditary predisposition, either to the disease actually present, or to some allied disorder. Epileptics, for example, are frequently offspring of tubercular or syphilitic parents or of epileptics. Again, chorea and hysteria may be developed from the most trivial excitement (even from imitation of others so affected) in subjects predisposed to nervous excitability or debility. Apoplectic subjects not infrequently beget offspring who manifest in adult life a decided tendency to vascular disease. Certain spinal affections seem to be particularly associated with heredity. Cancer and tuberculosis are unquestionably transmitted, and are not infrequently found in the brain and spinal cord or their envelopes.

A marked hereditary tendency toward some spinal affections seems to be well established. Pseudo-hypertrophic paralysis is transmitted through the mother. Locomotor ataxia occasionally runs in families, and progressive muscular atrophy is markedly hereditary. Some hysterical women can be shown to have sprung from ancestry in which epilepsy or insanity has existed; and idiotic children and epileptics sometimes owe their disease to a so-called "hysterical temperament" on the mother's side.

THE HABITS OF THE PATIENT should be the next subject of inquiry.

Alcoholic subjects are always surrounded by dangerous possibilities. Inflammation, when once started in such patients, is liable to be of a severe and fatal form. Trivial injuries often excite serious complications in such subjects, and old affections, which have been comparatively dormant for some time, may be kindled into activity by a "spree."

Again, the habitual use of drugs for nervousness, sleeplessness, and all the other ailments with which the laity often experiment at the suggestions of friends, but without the knowledge of their doctor, may be a factor in nervous symptoms that have become aggravated or actually developed by their injudicious use. Some patients can use tobacco without apparent injury, while it is a rank poison to others; tea and coffee are likewise injurious to many patients. The long-continued use of chloral, the bromides, opium, or other drugs may result in nervous affections of a serious character.

THE OCCUPATION OF THE PATIENT may be a possible factor in the development of nervous diseases.

Sewing-girls frequently develop ulceration of the stomach from the pressure exerted upon that organ by stooping. Painters are peculiarly liable to lead-poisoning; and in some arts, where mercurial, phosphoric, and arsenical preparations are extensively employed, symptoms of these forms of poisoning may be developed. Exposure to cold or dampness is very often an exciting cause of spinal affections. Excessive exercise or occupations demanding an unusual strain upon the muscles may induce actual disease of the muscles, peripheral nerves, spinal cord, or brain. Extreme mental labor or anxiety is a frequent cause of brain inflammation and changes within the coats of the blood-vessels of that organ.

THE ACQUIRED DISEASES.—Finally, the previous history of the patient in respect to acquired diseases is especially important as an aid in deciding as to the probable cause of existing symptoms.

All attacks of illness which have been passed through should be carefully inquired into. The presence or absence of latent syphilis should always be investigated as per-

haps one of the most common causes of nervous affections. The presence or absence of tubercular deposits in the lungs, or of cancer in the breast or viscera, should be decided by a physical examination, because similar deposits may exist elsewhere in the body. Some of the fevers often cause sequelæ that create impairment of the senses of sight and hearing, as well as other nervous phenomena. Cerebro-spinal meningitis may leave after-effects upon the nerve-centres that last for an indefinite period. Kidney disease may result in serious changes in the blood-vessels, and thus be a factor in the development of brain troubles. Diphtheria is frequently followed by paralysis of the throat and limbs. Diabetes may itself indicate an existing brain disease; or, as the result of imperfect performance of the digestive processes, create, in turn, symptoms referable to the nervous mechanism. In point of fact, few, if any, of the more common diseases are entirely exempt from a more or less direct association with nervous phenomena.

There is a prevalent opinion among the laity (and, unfortunately, with some of the profession also) that the nervous system is a distinct and separate part of the human organization, an entity entirely independent of the other organs and having functions peculiarly its own. They seem to forget that it is nourished by the same source as muscle, bone, organs, etc., *e.g.*, the blood; that every part of the body is capable of sending telegraphic communications to the brain and spinal cord by means of the sensory nerves; and, finally, that these organs are called into action rather as the servants of the other parts of the body than as independent organisms, by the various impressions which they receive from without. All the mental processes are based, of necessity, upon some impressions of the outer world gained by means of the organs of sight, smell, hearing, touch, taste, or the nerves of general sensibility.

The apparent disassociation which exists between the nervous centres and the viscera often misleads the practitioner of medicine, and causes him to disregard the importance of a complete examination of the various organs before a final judgment is expressed concerning nervous phenomena that are brought to his notice.

Some of the more common forms of nervous affections are purely functional. Text-books abound in cases where some disease of the intestine, ovaries, uterus, kidneys, bladder, and urethra have been the exciting cause of paralysis, and of serious effects upon the nerve-centres. Hysteria is often associated with an attack of paralysis that is not easily differentiated from the types of paralysis produced by destructive processes within the brain and spinal cord. Epilepsy and St. Vitus' dance are purely nervous diseases, and yet they may sometimes be the result of a defective assimilation of food, general debility, some poverty of the blood, and many other such causes that are not directly associated with the nervous system proper.

On the other hand, diseased conditions of the nervous centres may induce so-called trophic changes, or changes of nutrition, not only in the muscles—as is evidenced by atrophy of a more or less complete kind—but also in the skin, the various organs, the joints, and even in the bones.

The peripheral nerves preside not only over the muscles, to which they give the power of contraction, and the tactile organs of the skin, to which they contribute the ability to perceive all varieties of impressions, such as the tactile sense, the sense of cold and of heat, the feelings of pain, etc., but they have another equally important function, which they exercise chiefly by means of the so-called vaso-motor filaments, viz., the regulation of the blood-supply to the viscera, organs of special sense, muscles, bones, joints, and skin. Now, when the nerve-centres become involved by any form of destructive process that cuts off these so-called "trophic fibres" from connection with certain parts of the spinal cord or brain, definite regions of the body may waste away without exhibiting paralysis, the eye and ear may lose their marvellous functions, and the skin may develop different forms of eruptions, bed-sores, etc.

Finally, the spinal cord and the medulla oblongata (which is its uppermost portion) contain certain collections of nerve-cells or "reflex centres" that preside over the more important functions, or those essential to life.

By means of an excitability which is present in these collections of cells, the heart is kept pulsating; the respirations go on, even in spite of any voluntary efforts made to arrest them; the pupil dilates and contracts when exposed to different degrees of light; and the bladder and rectum expel the excretions that accumulate within them. In the same way the sexual act is rendered possible in the male; the stomach and intestine keep up a perpetual worm-like movement; swallowing is performed in such a way that the food does not enter the air-passages or pass upward into the nose; the calibre of the blood-vessels is constantly altered, so as to meet the demands of different parts of the body when active or at rest; and the acts of vomiting, hiccough, sneezing, sighing, laughing, etc., are rendered possible, and often involuntary.

In closing this section of my article, I take the liberty of presenting a sample page of my own case-book, specially designed for the recording of the results of the first examination of patients afflicted with any form of nervous malady. Some of the headings will be discussed in subsequent pages. Their bearings upon diagnosis will then be made clear. The page which faces the printed one is left blank to allow of subsequent record of the treatment and any new symptoms that may arise.

Name.....*Age*....*Occupation*.....*Date*.....188..

Hereditary tendencies:
- Parents.....
- Brothers and sisters.....
- Near relatives.....

Clinical history:
- Acquired diseases—
  - Fevers.....
  - Lungs.....
  - Kidneys.....
  - Pelvic organs.....
  - Venereal.....
- Habits, as to diet.....
  - " " alcohol.....
  - " " tobacco or drugs.
  - " " venery .....

Motor phenomena .....
Sensory phenomena.....
Attitude.....
Gait .....
Sense of smell.....
Eye:
- Pupils.....
- Lids.....
- Ocular movements .....
- Vision.....
- Condition of fundus.....

Ear:
- Deformities .....
- Hearing .....

Mouth:
- Taste.....
- Articulation.....
- Deglutition.....
- Attitude of lips.....
- Movements of tongue.....

Brain:
- Memory .....
- Emotions.....
- Logical power.....
- Sleep .....
- Aphasia .....
- Vertigo.....

Spinal cord:
- Superficial reflexes.....
- Deep reflexes... .....
- Delayed sensation.....
- Anæsthesia.....
- Hyperæsthesia.....
- Pain .....
- Coördination... *t*.....

Pulse..... .....
Temperature.....
Respiration .....
Voice .....
Tremor..... .....
Fibrillary twitchings.....
Handwriting.....
Condition of arteries.....
- of urethra.... .....
- of bladder.....
- of uterus..... .....
- of ovaries .....
- of urine.....
- of heart.....

Diagnosis.

SYMPTOMS OF NERVOUS DISEASES REVEALED TO THE PHYSICIAN BY HIS SENSE OF SIGHT.

When a patient and his medical adviser meet for the first time there are many medical facts which may be detected simply by a glance, without a question being asked. Sometimes information thus gained is invaluable to the doctor, and of the greatest importance in diagnosis. To become skilful in this line, however, both study and practice are requisite.

Three years since I published, in the *New York Medical Journal*, a contribution to the study of medical physiognomy, and, in my late work on "Medical Anatomy" (Wood's Library for 1882), I have devoted an entire

chapter to the subject. In this article, however, I shall only touch upon such points as are related to the diagnosis of nervous diseases.

This section of my article I shall discuss under the following heads: 1. The study of the features and general appearance of the patient. 2. The study of the gait and the attitude of the patient, when sitting, standing, or reclining.

THE FEATURES AND GENERAL APPEARANCE OF THE PATIENT.—One glance at a face affected with such striking alterations as those produced by Bell's paralysis, Duchenne's palsy in its advanced state, marked atrophy of its muscles, and some other nervous conditions which are associated with extreme facial deformity, would be sufficient, with even an inexperienced practitioner, for a diagnosis. But all diseases of the nervous centres, or of the cranial nerves themselves independently of the brain, are not so forcibly evidenced in the face. Something of value can, however, usually be learned by a careful study of each of its parts, especially the forehead, eye, lips, tongue, and ear.

A prominent and tortuous artery upon the temple may catch the eye of the doctor. It is well to know that such a condition often accompanies kidney disease. A scanning of the face will show whether the complexion is ruddy, as in health, or pale from some cachexia; clear and free from eruptions, or sallow and dingy; waxy and transparent, as in Bright's disease, or tinged with blue from imperfect oxygenation of the blood. In children, certain lines or wrinkles may possibly exist that point strongly to some complicating disease of the brain, lungs, heart, or digestive organs, the presence of persistent pain, and other valuable data. In adults or the aged these lines are of less clinical importance. I have discussed them in other articles, previously referred to.

A collar loosened or open may suggest some difficulty in breathing. An untied shoe may cover a dropsical foot; a slit in the region of the "great-toe joint" may have been made as a relief to gouty inflammation; one shoe badly worn at the toe may tell of an existing hemiplegia. Patients with enfeebled mental powers and drunkards are particularly liable to have their clothing wrongly or incompletely buttoned; the pants imperfectly closed or open; the shoe down at the heel; the hair uncombed, and to present other evidences of indifference to neatness of appearance.

Good strong hair in abundance, and teeth that are free from defects, are evidences, in the adult, of a naturally vigorous constitution. Broad shoulders and deep chests are likewise an indication of inherited strength both of the organs and muscles.

THE DIATHESIS.—The general appearance of the patient may afford some valuable information respecting an hereditary diathesis. Laycock has admirably described them. Patients of the "gouty" diathesis usually have a heavy frame, well-developed muscles, a large head and jaw, strong hair and teeth, a robust appearance, and an erect carriage. They are peculiarly susceptible, in adult life, to diseases of the blood-vessels, apoplexy, aneurism, and heart troubles.

In contrast to this type, those of the well-marked "strumous" diathesis have a light bony framework, which is often characterized by an enlargement of the ends of the long bones. The hand is sometimes unshapely from this peculiar defect, or the rings which will pass the joints are too large for the finger. The chest of such subjects is also small. The glands of the neck tend to become enlarged at about the age of puberty.

The hair of strumous subjects is liable to be thin and fine. The eyelashes are usually long and silken, although the lids may sometimes be diseased and the lashes more or less disfigured. As children, they are liable to be unusually precocious. The teeth are crowded into a narrow arch and are liable to decay early. The under jaw is light. Evidences of rickets in childhood may exist during adult life. Scrofulous children inherit either a velvety skin, dark-brown complexion, dark hair, dark brilliant eyes, and long lashes, with the lineaments of a face finely drawn and expressive; or a fair complexion, thick and swollen nose, broad chin, teeth irregular and developed late, inflammation of the Meibomian glands, scrofulous ophthalmia, eruptions of the head, nose, and lips, and enlarged cervical glands. These subjects are often "chicken-breasted" and "bow-legged." The "strumous diathesis" entails a peculiar liability to defective nutrition, glandular enlargements, and "consumptive" changes within the lungs during early manhood. Epilepsy and hydrocephalus often develop in such subjects during infancy or childhood.

The so-called "nervous" diathesis is commonly associated with small but perfect bones, an absence of fat, a well-formed cranium, small features, quick intelligence, and an active frame. They usually have a bright eye and small abdominal organs. They bear fatigue well, but are peculiarly susceptible to nervous excitability and depression. In adult life they become the more common victims to neuralgia, epilepsy, hysteria, dipsomania, and many other nervous diseases.

Dark-haired and swarthy subjects are often of the "bilious" temperament. They commonly possess large frames, strong muscles, and a tendency to moderate obesity. They are active rather than lethargic. The digestive organs are often disturbed by habits of over-indulgence at the table or excessive mental efforts. Such subjects commonly suffer from "sick-headaches" from early childhood, and often develop gouty symptoms in early adult life. They are not infrequently victims to vascular changes, kidney disease, and apoplexy, after the age of fifty years.

The "lymphatic" diathesis is generally met with in sluggish, lazy, and large subjects. They are commonly addicted to alcohol (because they suffer from fatigue), and to excessive eating. They have heavy bones, but soft and flabby muscles. They are often pale. They usually thrive best in invigorating climates.

Now, it must be remembered that it is seldom that the physician meets either of these types unadulterated. A man of the gouty diathesis, with a wife of the "nervous" type, will probably have children that exhibit certain characteristics of both. Hence it is often desirable, before making a diagnosis, to inquire into the peculiarities of build and temperament of the ancestors of patients afflicted with nervous diseases, as well as to their duration of life and the causes of their deaths.

THE CACHEXIA.—These are diseased conditions. The ones which are most frequently recognized by the neurologist are those of syphilis, cancer, gout, mercurial or lead-poisoning, and malaria. In all of these there is a poverty of the blood, because the red corpuscles are more or less destroyed and the constituents of the blood-plasma are altered. If a cachexia is superimposed upon some special form of diathesis, a double danger to the patient is the result. A strumous subject, for example, may have his tubercular tendencies materially hastened, if not actually developed, by malaria, syphilis, and mercurial or lead-poisoning.

SPECIAL PHYSIOGNOMY.—As the physician scans the features of his patient, it is best to inspect different parts of the face separately, as it were. Let us note what he should particularly observe.

The forehead. If the forehead be well developed, the "nervous diathesis" is liable to be present. If protuberant and overhanging a small and imperfectly developed face, rickets, hereditary syphilis, or hydrocephalus have probably existed in childhood. If hereditary syphilis has conduced toward the cranial deformity, the teeth will be found to be defective. Ulceration upon the forehead, unless it be due to a wound, is invariably syphilitic. Scars of this region or copper-colored spots are equally significant and suggestive. Depressed fractures over the frontal region are not necessarily associated in the adult with injury to the brain, even if extensive, be-

cause the frontal sinuses are developed after puberty, and the front wall of the sinus may be then crushed in without disturbing the back wall or the underlying brain. A very small cranium and a retreating forehead are often present in imbeciles.

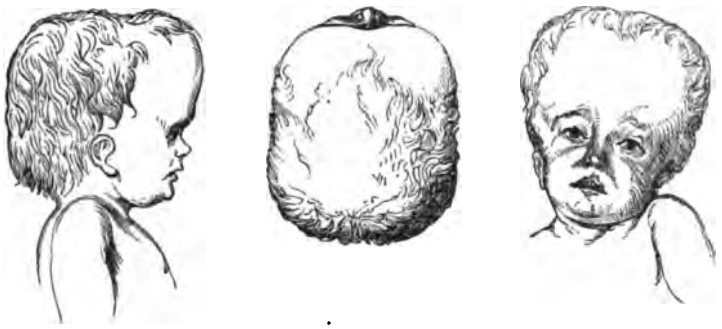

FIG. 3.—Three Views of the Hydrocephalic Head.

The eye. In the aged, if the cornea be cloudy, it is well to lift the upper eyelid and seek for an arc of a lighter shade—the so-called "arcus senilis."

If it exist, and its edges are indistinctly defined, there is reason to suspect that the tissues of the body (especially the heart) are undergoing fatty degeneration.

The pupils should be next examined to see if they are equal in size, and if their movements are in any way impaired. There is one condition, called from its discoverer the "Robertson pupil," that is of the greatest significance to the neurologist, because it indicates a hardening, or "sclerosis," as it is called, of the spinal cord. It occurs only when this disease has involved the "cilio-spinal centre" of the cord. This condition is indicated in the eye by preternaturally small pupils that do not respond to light, but which still move when efforts to accommodate the vision to near objects (within the space of twenty feet) are demanded. To test this fact, place the patient at a window and instruct him to look fixedly at some object more than twenty feet off whenever his eyes are open, so that the pupil need not contract in order to focus the vision. Now tell him to close the eyes and keep them closed until instructed to open them. After sufficient time has elapsed for the pupils to have become dilated, tell him to open his eyes. Watch carefully at this moment for a response in the pupils, as they will contract instantly in health. If they fail to do so, the existence of spinal sclerosis is almost positively indicated.

Abnormalities of the pupils may afford the practitioner material aid in diagnosis. The pupils are found to be dilated during attacks of dyspnœa and after excessive muscular exertion, in the later stages of anæsthesia, and in cases of poisoning from belladonna and other drugs of similar action. A contracted state of the pupils exists during alcoholic excitement, in the early stages of anæsthesia from chloroform, and in poisoning by morphia or other preparations of opium, physostigmine, chloral, and some other drugs. Paralysis of the third cranial nerve creates a dilated condition of the pupil of the same side, since that nerve controls the circular fibres of the iris.

Again, one pupil may dilate irregularly in a weak light. This suggests the existence of adhesions of the iris, as a result of past inflammation. Iritis is often syphilitic, and this symptom may tell of past infection. The inner surface of the eyelid is a valuable guide to detect the presence of anæmia, as it shows a pallor that is in marked contrast to the redness of health. Alcoholic subjects are apt to have a vascular redness of the eyeball. Bright's disease often causes a drop of fluid beneath the conjunctiva that might be mistaken for a tear. It can be moved, however, while a tear cannot without causing its disappearance.

The movements of the eye should be the next subject of inquiry. Brain diseases sometimes manifest their existence very early by some form of paralysis of the ocular muscles. Strabismus or cross-eye may exist when the third or sixth cranial nerves are impaired. We meet it chiefly in connection with hydrocephalus, apoplectic clots, brain-tumors, cerebral meningitis, growths within the orbit, and as a congenital or acquired deformity.

It is a fact well known among oculists, and one which often helps them materially in diagnosis, that the defects of vision occasioned by impairment in the power of some of the muscles which control the eyeball, cause the patients unconsciously to assume a position of the head which tends to assist them in the use of the affected eye. So diagnostic are some of the attitudes assumed by this class of afflicted people, that the condition which exists may be told at a glance, as the patient enters a room, by one thoroughly familiar with the diseases of this important organ. The explanation of this tendency on the part of this class of patients lies in the fact that any loss of power in the ocular muscles immediately shows itself in the perception of every object, as it were, doubled; and it is to overcome these double images that patients almost instantaneously discover their ability to get rid of the annoyance by some special attitude, which, of course, depends upon the muscle that is weakened or paralyzed.

It will be necessary, in order to clearly understand the mechanism of this peculiarity, that the separate action of the six muscles which directly act upon the globe of the eye be considered.

The action of each of the ocular muscles may be given, then, as follows, with the proviso that many of the motions of the eye are not the result of the contraction of any single muscle, but often of a number acting either in unison or successively.

The superior oblique muscle turns the eye downward and outward; the inferior oblique muscle turns the eye upward and outward; the superior rectus muscle turns the eye upward and inward; the inferior rectus muscle turns the eye downward and inward; the internal rectus muscle turns the eye directly inward; the external rectus muscle turns the eye directly outward.

This statement as to the above muscles reveals nothing which would not be immediately suggested by the insertion of each, with the exception of the superior and inferior recti muscles, which, besides the action that their situation would naturally suggest, tend also to draw the eyeball inward, on account of the obliquity of the axis of the orbit, and the same obliquity of the muscles, since they arise at the apex of the orbit. The action of the oblique muscles is, as any one familiar with their origin and insertion would naturally surmise, to control the oblique movements of the eyeball.

Now, as soon as any one of these six muscles becomes pressed upon and weakened by the presence of tumors, inflammatory exudation, syphilis, or other causes, the patient at once perceives double images, and, in order to get his eye into such a relative position with that of the healthy side as to enable them both to focus upon the same object in a natural manner, the patient soon learns to so move his head as to compel the two eyes to look in parallel directions.

A very simple rule can be suggested by which the physician may be enabled, not only to tell in what direction a patient would move his head in case any special muscle be rendered weak or utterly useless, but also to diagnose the muscle affected, when he looks at the patient, without any knowledge of his history. The rule may be thus stated: *In paresis of any of the ocular muscles, the head is so deflected from its normal position that the chin is carried in a direction corresponding to the action of the affected muscle.*

Thus, in paresis of the external rectus,[1] the chin would

[1] While this statement would be absolutely true in theory in all cases, we must acknowledge, as a clinical fact, that patients learn to utterly disregard the image in the affected eye when the internal or external rectus is the seat of paresis, and to use the normal eye only for the purposes of vision, thus rendering this attitude of the head less diagnostic than when the oblique muscles are affected.

be carried outward toward the injured muscle; while in paresis of the internal rectus muscle the head would be turned away from the side on which the muscle fails to act. In case the superior oblique muscle is impaired, the chin would be carried downward and outward; while in the case of the inferior oblique muscle, the chin would have to be moved upward and outward to benefit the vision of the patient. The superior and inferior recti muscles, when impaired by disease or other causes, would likewise create a deflection of the head in a line corresponding to that of their respective actions.

Paresis of the external and internal recti muscles causes, in addition to the facts already described, another point of very great value in diagnosis, viz., an alteration in the apparent size of the objects seen from what they would be in health. The condition of vision termed by oculists "megalopsia" or "macropsia," signifies paresis of the external rectus; while the opposite condition, called "micropsia," indicates loss of power in the internal rectus muscle.

In the former of these conditions, the objects seen by the patient seem to be greater in point of size than the intelligence of the patient assures him is the case; while in the latter, objects seem smaller to the patient than they really are.

I take the liberty of quoting, in this connection, an extract respecting the eye from my brochure on medical physiognomy:

"The intimate communications between the fifth, the seventh, and the sympathetic nerves, through the media of the ciliary, optic, and Meckel's ganglia, would lead us to expect that the eye should exhibit in its altered appearance the derangement of internal structures. 'When a glance of this organ is caught, what a field of mute expression is open to the mind! This silent and instructive index of the whole man may be bright or dull, heavy or clear, half-shut or unnaturally open, sunken or protruded, fixed or oscillating, straight or distorted, staring or twinkling, fiery or lethargic, anxious or distressed; again, it may be watery or dry, of a pale blue, or its white turned to yellow.'

"The pupils may be contracted or widely dilated, insensible to or intolerant of light, oscillating or otherwise, unequal in size, or changed from their natural clearness of outline. 'The noble arch of the brow speaks its varied language in every face of suffering humanity. It may be overhanging or corrugated, raised or depressed; while the lid of the eye, an important part of this vault, exhibits alternations of puffiness or hollowness, of smoothness or unevenness, of darkness or paleness, of sallowness or brown discoloration, of white or purple. Lines intersect this region, and the varied tints are perpetually giving new color, new feature, new expression, by their shadows.' If the frontal muscle acts in connection with the corrugator supercilii, an acute deflection upward is given to the inner part of the eyebrow, very different from the general action of the muscle, and decidedly expressive of debilitating pain, or of discontent, according to the prevailing cast of the rest of the countenance. An irregularity of the pupils of the two eyes indicates, as a rule, pressure upon nerve-centres or upon the optic nerve itself. In adynamic fevers the eyes are heavy and extremely sluggish, and are, as a rule, partially covered by the drooping eyelid; while in certain forms of mania they are seldom motionless. This latter peculiarity is also often noticed in idiocy.

"In the so-called 'Bell's paralysis,' due to failure of the facial nerve, the eyelids stand wide open and cannot be voluntarily closed, since the orbicularis palpebrarum muscle is paralyzed. This condition may be further recognized, if unilateral, by a smoothness of the affected side, since the antagonistic muscles tend to draw the face toward the side opposite to the one in which the muscular movement is impaired; an inability to place the mouth in the position of whistling, since for this act the two sides of the face must act in unison; loss of control of saliva, which dribbles from the corner of the mouth; and a tendency to accumulation of food in the cheek, since the buccinator muscle no longer acts.

"When the third pair of nerves are affected upon either side the upper eyelid cannot be voluntarily raised, for

FIG. 4.—Bell's Paralysis, or unilateral Facial Palsy.

the levator palpebræ muscle fails to act; and the eye is caused to diverge outward, since the external rectus muscle, not being supplied by the third pair, and having no counterbalancing muscle, draws the eye from its line of parallelism with its fellow. In photophobia, attempts to open the eye create resistance on the part of the patient, since the entrance of light causes pain; while, as death approaches, or in the state of coma (save in a few exceptions), the eyes are usually open. In cardiac hypertrophy an unusual brilliancy of the eye is perceived, since the arterial system is overfilled from the additional power of the heart. A peculiar glistening stare exists during the course of scarlet fever, which is in marked contrast with the liquid, tender, and watery eye of measles. Many diseases of the eye itself tend to greatly alter the normal expression of the face. Prominently among these may be mentioned cataract, glaucoma, cancer, staphyloma, exophthalmus, iritis, conjunctivitis, amaurosis, etc., but the special peculiarities of each need not be here described." Finally, the ophthalmoscope is an important and valuable aid to those who are skilled in its use in detecting changes in the deep parts of the eye, chiefly those of the optic nerve and the vessels of the retina, by means of the sense of sight.

Dr. William C. Ayres has lately published in *The American Journal of the Medical Sciences* an exceedingly valuable and complete article upon this branch of diagnosis.

By means of the ophthalmoscope the neurologist determines the presence or absence of a neuro-retinitis, or a "choked disk" as it is called, which is peculiarly suggestive of some brain lesion that is creating a gradually increasing pressure within the cavity of the skull. Again, the vessels of the retina are derived from the same source as those of the brain; hence changes in the one are liable to be associated with similar changes in the other.

(To be continued.)

ON THE USE OF FORCE IN THE TREATMENT OF RESISTANT CLUB-FOOT.

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It is certainly desirable to place in the hands of the general surgeon a method by which obstinate, relapsed, or half-treated cases of congenital talipes equino-varus may be cured without the expenditure of a great amount of time or the trouble of a great amount of special detail. This is particularly needed in the service of a large general hospital, and in the work of a country practitioner. The operation of excision of the tarsus has probably come into vogue on account of this need; but although this mode of procedure is apparently attended by slight risk and followed by excellent results, if equally good results can be obtained by less severe surgical interference the method is certainly to be discarded. Personal experience[1] in tarsotomy has led me to this conclusion, for although excellent results were obtained it appeared that the resistance to correction was not due so much to the deformity of the tarsal bones as to the tissues (presumably ligamentous) binding the displaced bones together, and that theoretically it was better surgery to attack the latter than the former structures. Simple tenotomy is not sufficient to divide the ligaments which lie close to the tarsal bones. A direct incision, proposed and successfully carried out by Dr. Phelps, of Chateaugay, is objectionable on the ground that correction would leave a gaping wound, and also because, on general principles, a deep incision is to be avoided if equally good results can be obtained without. Gradual stretching, the method most in vogue, demands in the most obstinate cases a great deal of time and a daily attention not always at command.

The method of forcibly rectifying a club-foot is not a new one, but it has not found favor because of the mechanical difficulties encountered, and also because a practicable means of fixation after such correction had not been in use, consequently not enough has been gained to sanction the procedure. Furthermore, tradition has deterred many surgeons from immediate correction in the fear of subsequent non-union of tendons.

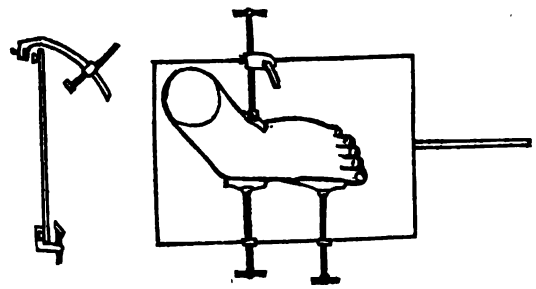
The first mechanical means of value for the purpose of immediately correcting obstinate club-foot was reported by Dr. Morton, of Philadelphia. In two cases in which I had the opportunity of testing this method its efficiency was proved, and fair results obtained; perfect success was not gained from the fact that perfect fixation through lack of experience in the method and in the mode of after-treatment was not effected. The appliance seemed to be defective, in that it lacked precision, relying as it did for the correcting force upon straps, which are liable to stretch and slip. The accompanying drawing illustrates an appliance which appeared to remedy this difficulty.

The object of the appliance is to exert pressure under control of the operator in three directions, and also to enable him to twist and raise the front of the foot.

The apparatus consists:

1. Of a plate large enough for any foot.

2. Of three steel buffers or padded plates, which are attached at the ends to steel screw-rods playing through sockets with a female screw thread at the sides of the large plate. By turning the screws, which is done by the handles, the plates or buffers are pushed forward. They should be placed so as to press (1) upon the side of the first metatarsal; (2) on the side of the os calcis just beneath the inner malleolus; (3) on the outer side of the foot over the projecting head of the astragalus. The female screw through which the male screw plays is adjustable upon an arm curved so that pressure can be applied when it may be found necessary. The sockets and arms are arranged so that they can be shifted and placed at any point along the side of the large plate, or can be shifted from side to side, so that the appliance can be used for either foot.



Cross-section. FIG. 1.

3. A straight rod, extended in the plane of the plate, gives increased power in raising the front of the foot. This is not always needed, and can be removed.

In operating upon obstinate cases of club-foot (the only cases for which this method is designed) the method of procedure is as follows: Tenotomy is performed in the usual way, the plantar fascia divided first, the tibiales tendons (if contraction is present) and the tendo Achillis last (after the deformity at the arch of the foot has been in a degree corrected); the foot is then forcibly manipulated with the hands, pressure being exercised upon the projecting head of the astragalus by the thumbs, and force applied in a counter-direction by the hands grasping the ankle and forepart of the foot. It will be found in certain cases that complete correction of the deformity cannot be accomplished by the hands alone, and the hindrance will be seen to be not a shortened tendon or any tissue accessible to the tenotome.

The instrument just described is then to be applied, and the screws turned and adjusted so that the plates will press upon the os calcis, the head of the astragalus, and the side of the first metatarsal as far as its articulation with the tarsus. The foot will now be firmly held, and by additional turns of the screw force can be applied in the desired directions. Rotation upward and outward can be effected by twisting the plate and the equinus deformity of the foot can be corrected by pressing the end of the plate upward. In case it is desired to increase the power in this direction this can be done by increasing the length of the handle. If the screw plates are properly adjusted it will be found that there is no danger of a fracture, as the pressure can be so directed that the ligaments will yield before any of the bones of the tarsus can be broken. An anæsthetic is of course required, and correction will be done gradually rather than by any sudden tear. The extent to which force can with safety be applied is with difficulty defined; it may be said, however, that experience shows that a much greater pressure can be used than would at first be thought feasible—in a majority of cases enough force can be used to convert the foot from the position of varus to that of valgus, and to correct the equinus position. In the simpler cases this is always possible; in the severer cases some minutes should be given to gradually stretch the foot. Sometimes complete correction is not possible at one sitting, and something will have to be left for after-treatment or for a second sitting.

After the foot has been brought into a position which is nearly normal, and the contracted tissues so stretched that the foot can be held without a great amount of force, the foot should be fixed in the corrected position. For this purpose nothing has been found so useful or comfortable as a plaster-of-Paris bandage properly applied. The foot should be held in as nearly a normal position as is possible, grasped by one hand at the toes while counter-pressure is exerted on the leg. Roller plaster bandages prepared in the way that is customary for plaster jackets are wound around the foot and leg,

[1] Boston Medical and Surgical Journal, 1881, p. 241.

which are first to be covered with one layer of sheet-wadding. The bandages are to be applied without loosening the hold upon the foot, which is to be kept in the corrected position until the bandages have become sufficiently hard as not to yield when the hold on the foot is loosened, and additional turns are then applied around the toes. The bandage should be carried above the knee and half way up the thigh, and the leg should be flexed at the knee, thus preventing any subsequent rolling of the limb within the plaster bandage. After the dressing has become stiff, and before it is absolutely hard, it can be cut through by two cuts along the dorsum of the leg and foot, and cross cuts over the foot and thigh, so that the lid of the plaster-box may be lifted and the parts inspected subsequently, when necessary, without destroying the bandage.

There should be no wrinkles in the bandage, and no pressure should be made upon the dorsum of the foot while the gypsum dressing is hardening. After ten days to three weeks the stiff bandage may be removed, and if the foot is sufficiently corrected, a walking-shoe applied.[1]

The chief objection which will be urged against this method will be the supposed risk incurred. It would seem, however, that the danger is not so great as would be thought. Experience with osteoclasis has proven conclusively that the temporary pressure upon the skin necessary to break a bone does not cause sloughing, or even an abrasion; the same is true of the pressure required to rectify a club-foot. Experience has also proved that it is safe to fix a limb immediately after osteoclasis with plaster-of-Paris bandage. The same appears to be the case in club-foot, if ordinary care is used in applying the bandages. Sloughs may occur on the inside of the ball of the toe, on the outer and under side of the sole, and on the dorsum of the foot; but these sloughs are not more troublesome than those sometimes occurring in the use of Scarpa's shoe or appliances, held by straps, and they are not so liable to occur from the fact that in a foot held in a well-applied plaster-of-Paris bandage, the pressure is not confined to a few points but is nearly uniform over the whole foot. In case a slough appears (a fact to be determined by lifting the lip of the plaster-of-Paris box which holds the foot), the following appliance (Fig. 2) can be used until the skin has recovered so that a plaster bandage can again be applied if a second one is necessary.

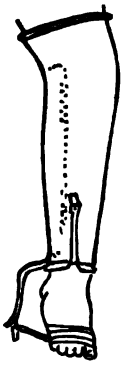


Fig. 2.

A plaster bandage is applied in the ordinary way from the lower part of the leg above the malleoli to above the knee, which should be bent; a strip of strong iron rod is placed on the first layer of the bandage, bent at the top so as to half encircle the thigh, to pass along the outer side of the leg, and to project slightly above and to the outer side of the outer edge of the foot. At the lower end of this rod a buckle is attached, and the portion lying upon the plaster bandage is thoroughly incorporated by the successive turns of the bandage. A strip of rubber adhesive plaster is wound around the foot (which can be protected in the sole by card-board if necessary), and to the free end of the plaster at the level of the terminal end of the fifth metacarpal a piece of webbing is sewn. This is to be buckled to the buckle attached to the iron rod. Other strips of webbing and other buckles can, if needed, be put at any desired point, and by a wrench the iron can be bent in any direction, so that the point from which the pull is to proceed can be placed at any desired direction; additional strips of iron rod can also, when necessary, be applied. It is of course desirable to prevent the whole appliance from slipping down, and this can be done by placing a long strip of adhesive plaster on the skin of the leg before the gypsum bandage is applied, and a buckle on the outside of the bandage; if the free end of the plaster is secured in the buckle, slipping down of the appliance is prevented. A stocking and slipper can be worn on the foot if a hole is cut in the side for the strip of webbing to pass through, and the patient can bear weight upon the foot.

As an objection to the method of applying a fixed dressing, it has been said that the plaster dressing being a fixed one and not allowing motion, gradual gain cannot be made beyond the position in which the foot has been placed. This is of course true, but almost complete correction can be gained in the majority of cases immediately, and the further gradual gain is only such as can be secured by a walking-shoe. A fixed dressing secures the indicated rest after the force required to gain the correction, and enables the stretched tissues to adapt themselves to the new position. The foot is forcibly put in a new position, and may be said to have suffered a "sprain," the indications for the treatment of which are fixation, which is most readily secured by a plaster bandage.

The danger of non-union of tendons after correction immediately following tenotomy in resistant cases can practically be disregarded, although it is mentioned by many authorities. In this, as in many other particulars, experience appears to disprove tradition.

After complete correction—and by that term is meant that the plane of the sole of the foot can be brought to a right angle with the axis of the leg, and that a line of the inner edge of the foot turns to the outside of the plane of the inner edge of the leg—and after all pain and swelling have subsided, a walking-shoe is applied. This is to be worn until the muscles have recovered the usual balance of power, the object being to prevent the possibility of incorrect walking.

The requisites of a walking-shoe are that it should be easily applied, without the supervision of the surgeon or a skilled nurse; that it should allow motion in all directions except those toward the position of former distortion; that it should not be cumbersome, heavy, or unsightly, and that it can be readily worn for some time. Various appliances have been in use for this purpose, but the one which has seemed to me the most efficient is the varus shoe, which Dr. C. F. Taylor, of New York, has devised and used, and for an explanation of which I am indebted to him. A published description of this useful appliance had best be left to the originator.

All of the foregoing cases were of the congenital deformity of an aggravated type; those of acquired variety were not included in the list.

By a *perfect* result is meant that the patient stands and walks on the whole of the sole of the foot; can when standing on the heel flex the front of the foot above the floor, and that the patient's foot presents no projection of the head of the astragalus or any of the tarsal bones on the outer and upper surface of the foot.

By an imperfect result is meant a condition of the foot falling short of this standard. By nearly perfect is meant that the heel can be brought to the floor without twisting the foot, but that the front of the foot cannot be raised without lifting the heel. This is true of the left foot in Cases 8 to 11. The patients are still under treatment.

Nos. 9, 10, and 11 were treated by forcible manual straightening without mechanical assistance. Nos. 14, 15, and 16 were experimental cases in a measure; they were the first ones treated in this way, and were but partly successful, for the reason that the method was not perfected, and chiefly because the feet were not fixed after operation from fear of injury following the use of plaster-of-Paris bandages, and because the bandages were not applied above the knee with the limb bent, and twisting in of the foot inside of the bandages occurred. The deformities were not more resistant and were less severe than the other children who were successfully treated. were all benefited, and walk with slightly noti

[1] Hahn, Berl. Woch., March 19, 1883, describes a new method of holding the foot while a plaster bandage is applied.

formity, except when the feet are bared. Case 16 is instructive from the fact that an aneurism of the posterior tibial followed a month after tenotomy. The tenotomy was freer than was needed, but at the time it was thought advisable to cut very freely, as the appliance for stretching was not perfected. The aneurism was, a

FIG. 3.—From cast. August 10, 1882.

FIG. 4.—From cast. October 4, 1882.

month later, cut down on, and found to proceed from a pin-hole opening in the artery. This was tied as any bleeding-point would be, and the patient recovered promptly, and at present, three years later, walks without appliances. An equinus deformity remains, the patient being unable to bring the heel to within one inch of the ground without twisting the front of the foot, and walkson three-fourths of the sole.

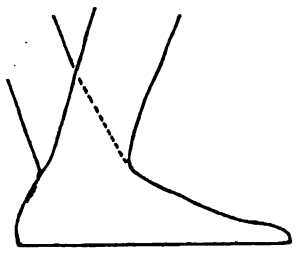


FIG. 5.

Case 1 has been the longest under observation, and would indicate that there is little danger of a recurrence of the deformity. At the present time he walks perfectly well, without appliance, and with perfect feet. For a year and a half after his discharge from the hospital he has been seen professionally but five times. He wore for a year light walking supports, which his mother has been able to adjust herself without medical supervision.

FIG. 6.

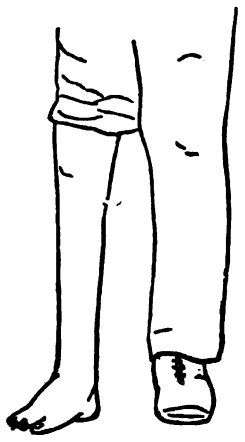


FIG. 7.

FIG. 8.

FIG. 6.—Drawn from cast. August, 1883.
FIG. 7.—From photograph. January 1, 1884.
FIG. 8.—From imprint of sole of foot. January 1, 1884.

Case 2 has not been seen since his discharge from the hospital. Letters from the parents report that at the present time, eighteen months after discharge, the child is walking perfectly.

The same is true of Case 3.

Case 4 was one of equally severe deformity. The patient is now, eight months after discharge, able to walk perfectly. The amount of flexibility at the ankle-joint is indicated by the accompanying tracing, taken by placing a piece of paper at the side of the leg, the sole of the foot being flat on the floor.

In Case 6 the patient suffered a good deal of pain for a week, and on the removal of the plaster a slough was found on the side of the ball of the toe and also on the dorsum of the foot. The appliance as indicated in Fig. 2 was used, and the patient went about with crutches. He began to use a walking-shoe in six weeks, and was discharged from the hospital, and three months later was in the position indicated in the photograph, and able to walk about freely without appliance, crutch, or cane, having taken care of his foot himself during that time, he being seen medically but six times, chiefly for observation. The treatment was perhaps hurried unnecessarily, and an earlier removal of the plaster would have prevented the sloughs appearing. These, however, did not in any way prevent the continuance of treatment.

The patient's foot was very resistant, and at the time of operation all possible force was required after tenotomy to press it into a normal position. The patient was fifteen years old, and had been walking on a deformed foot all his life.

Case 8 was the most resistant of the series, partly because the foot was small and force was therefore with

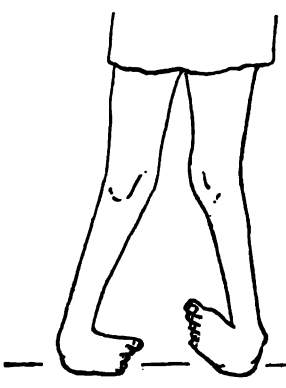


FIG. 9.

FIG. 10.

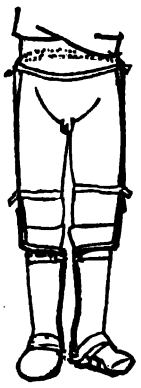


FIG. 11.

FIG. 9.—From photograph. September, 1883.
FIG. 10.—From photograph. January 1, 1884.
FIG. 11.—From photograph. January 1, 1884. Wearing appliance.

difficulty applied. Three sittings were necessary to straighten the left foot: a small slough appeared, and the spur appliance was used. The right foot was straightened in one sitting.

The length of time required in the treatment of the above cases varied. In the cases where the feet were the least resistant the plaster bandage was removed in from three to four weeks, and walking-shoes applied immediately. In Cases 2, 5, and 13 the whole active treatment occupied but a month, after which time the patients were left to the parents' care and not seen by the physician, although directed to wear the walking-shoes for a year. Case 13 was seen a year afterward, and the feet found to be in a perfectly satisfactory condition. The same may be said of Case 5, seen three months after discharge from the hospital. Where greater resistance was encountered longer time was needed. Case 6 was seven weeks under active treatment; Case 8, the most resistant of the cases collected, was four months under constant observation. In both the plaster bandages were removed on account of sloughs, and the spur appliance used until the feet were in a condition for a walking-shoe.

It should be borne in mind that the method of treatment by extreme mechanical force is not to be used except in extreme cases, and in cases were a speedy result is

desirable. It is not claimed that equally good results cannot be obtained by other more gradual methods. The writer, however, believes the method to be safe, to save time and trouble, and to give perfect results.

TABLE OF CASES OF CONGENITAL CLUB-FOOT TREATED BY THE USE OF FORCIBLE STRAIGHTENING.

No.	Name.	Address.	Age. Years.	Deformity.	No. of operations.	Hospital.	Result.
1	John Horihan.	3 Fifth Street, East Cambridge.	5	Double.	1	Samaritan.	Perfect.
2	Stafford Woodworth.	G. W. Woodworth, Kentville, N. S.	5	Single.	1	Samaritan.	Perfect.
3	Jessie Bishop.	J. Edwin Bishop, Highbury, Kings Co., N. S.	4	Single.	1	Samaritan.	Perfect.
4	Sadie McKay.	James McKay, Lanesville, Mass.	8	Single.	1	Samaritan.	Perfect.
5	Albert Burns.	23 Atlantic Corporation, Lawrence, Mass.	4	Single.	1	Samaritan.	Perfect.
6	Edward Sweeny.	97 Conant Street, Boston.	15	Single.	1	City.	Perfect.
7	Morris McDonald.	16 Bolton Street, North Cambridge.	8	Single.	1	Children's.	Nearly perfect.
8	Frederic Daniels.	61 Central Avenue, Chelsea.	5	Double.	3	Children's.	Nearly perfect.
9	Mary Feely.	96 Chaffee Street, Providence.	2	Double.	1	Children's.	Perfect.
10	Bessie Kinney.	Sherborn State Prison.	2	Single.	1	Children's.	Perfect.
11	Jessie Kelly.	Merriam Street, Somerville.	1½	Double.	1	Samaritan.	Nearly perfect.
12	Bessie Minard.	Nova Scotia.	4	Double.	1	Samaritan.	Perfect.
13	Leland Nelson.	S. E. Nelson, Ashburnham, Mass.	6	Double.	1	Children's.	Perfect.
14	Joseph Flynn.	South Boston.	5	Single.	1	Children's.	Imperfect.
15	Joseph Mahoney.	Longwood.	4	Double.	2	Children's.	Imperfect.
16	X. Y.	Dorchester.	7	Double.	3	Children's.	Imperfect.

HYDROPS AMNII AND CHANGE IN PRESENTATION.—Dr. N. O. D. Parks, L.R.C.S.I., etc., of Ashton, R. I., writes that he was called to attend a woman who had been in labor for over twelve hours. The pains were feeble, but after some hours improved. Examination showed a head presentation, os well dilated. The pains then ceased again, and the patient got up and walked around. There was evidently a very large amount of liquor amnii, though the membranes were not ruptured. When the pains returned, examination showed that the foot was presenting instead of the head. Dr. Parks quickly ruptured the membranes and siezed the foot, but found it hooked over the head. He finally disengaged it and completed the delivery. "The points of interest in this case," continues Dr. Parks, "are the rapid and alarming change of presentation and the difficulty in delivery arising from the foot becoming hooked around the child's neck. The fœtus had evidently been floating about in more than a gallon of liquor amnii and constantly changing its position, and the lesson I would derive is in every case of hydrops amnii to rupture the membranes *the moment you get a favorable presentation without waiting for a pain*, irrespective of the condition of the os."

A CASE OF FRACTURE OF THE PELVIS.

By EDWARD S. DWIGHT, M.D.,

NEW YORK.

I WAS called on September 12, 1883, to treat a young German fresco-painter, nineteen years of age, who, while working in a store in this city, had fallen from a scaffolding for a distance of about fifteen feet, the back part of his right hip striking diagonally against a projecting shelf a little above the floor, and the ilium of that side being fractured from a point a little to the outer side of the upper extremity of the sacro-iliac symphysis, downward and outward into the great sacro-sciatic notch.

The patient was unable to stand alone; there was marked crepitation along the line of fracture; efforts to rise caused a sensation of *falling in pieces;* and the thigh could not be flexed to an angle of less than 120° without great pain over the line of injury, and also over the tuberosity of the ischium. Severe pain was also felt in the groin. There was, however, no ecchymosis.

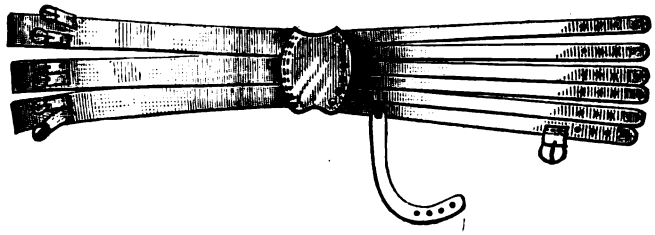
The treatment adopted was as follows: A roller bandage was first applied around the pelvis and was replaced on the following day by a thick plaster-dressing, enclosing both the pelvis and the upper half of the right thigh. The latter was slightly flexed, the front and outer side of the hip-joint being reinforced by moulded plaster splints. To prevent traction upon the ilium by the dorsal and lateral muscles of the trunk, I also added a few turns of roller bandage, which were carried over the right shoulder and under the perineum. These were tightly drawn, so as to depress the shoulder as much as possible, and were kept from slipping by means of a transverse band sewn to them in front and behind and passing around the left side of the chest. This contrivance diminished, to a great extent, the throbbings in the injured part which, together with numbness and tingling along the course of the great sciatic nerve, had been experienced, particularly at night.

At the end of six days, the plaster bandage having become very much loosened by the subsidence of the swelling, it was replaced by another, and tighter. This was applied over a layer of wadding and inclosed the pelvis only, the thigh being slung at an angle of 140° by a series of turns of roller which passed around, and were sewn to, the upper rim of this plaster-dressing, and which crossed each other above the thigh, where they were also sewn *together*, as well as to the plaster.

The rim of this second plaster bandage, being very thick and firm, prevented upward muscular traction, and the whole apparatus being constantly pulled downward and forward by the weight of the limb, was in consequence kept closely applied against the seat of injury.

Two weeks after the accident I slung the thigh from the neck also, carrying too a loop of strong cord from the bottom of the sling down below the instep, and allowed the patient to get out of bed and walk into the next room, which, with the aid of a crutch, he was able to do without pain.

Three weeks later this dressing was also removed, and replaced by the following apparatus in leather.



(This represents the back of the apparatus. The central pad rests on the sacrum; the six straps (right side) are all freely movable at their insertion, and are thus susceptible of being placed at any angle, so as to adapt themselves to the outline of the hip; the upper two are applied high up, so as to exert downward pressure upon

the crest of the ilium; the next two pass over the great trochanter; and the two lower ones are applied low down, so as to exert upward traction upon the tuberosity of the ischium. The three broad straps upon the left side are firmly sewn to the sacral pad, so as to afford efficient counter-pressure. The strap hanging from the lowest, on the right side, passes under the perineum, and is intended to aid in keeping the whole in place. A broad band of canton flannel was applied around the body before the belt was put on.)

The patient was now allowed, after a day or two, to walk about the rooms without a crutch, which he was able to do without pain, the belt acting as a moulded splint, and its lower straps preventing him from unduly raising his thigh. As the belt had a tendency to work upward, another perineal strap, upon the left side, was added with advantage.

Eight weeks after the accident the patient was able to go out of doors, and could flex his thigh to an angle of 85° without pain. Rheumatic tenderness and twinging pains, at changes of the weather, persisted up to the end of October.

The upper part of the fracture consolidated first. There was no effusion of callus perceptible to the touch, but the iliac border of the sacro-iliac symphysis seems much more prominent upon the injured than upon the opposite side.

Progress of Medical Science.

TUBERCULOSIS AGAIN.—At the recent meeting of the German Naturalists and Physicians, Professor Bollinger brought forward the results of some of his investigations on this subject (*Wiener Allgem. Med. Zeit.*, No. 40). Direct inoculation of tubercular virus under the skin of the guinea-pig failed to induce the disease even when the animals were placed under the worst hygienic conditions. Similar injections, however, made with milk derived from cows affected with bovine tuberculosis, resulted, in every case, in the reproduction of the disease. No result followed the injection of the same milk after it had been boiled, and hence the obvious deduction is insisted upon that precautionary boiling should be universally adopted. Professor Bollinger professes complete faith in the theory of infection from micro-organisms, and especially in the specific nature of the tubercle-bacillus, and in the identity of human tuberculosis with that form of the disease affecting the bovine animals. These views were strongly combated in discussion by Professor von Recklinghausen, who maintained that in the face of the fact that pathological changes, not distinguishable from those produced by tubercle, could be set up by the injection of indifferent or even crystalline substances, the discovery *post mortem* of this or that form of micro-organism could not be held to be conclusive as to the parasitic origin of such changes. That many varieties of micro-organism may make their way into the tissues and there develop and increase is undoubtedly true, but that they have any direct causal relation to all the pathological changes with which they are associated is denied. A familiar example is furnished by the small-pox pustule, in which certain bacteria are constantly found to be developed; but they certainly cannot be held to be the originators of the disease.

Professor Germain Sée, at the opening of his winter course at the Hôtel Dieu, gave an exposition of the different phases of phthisis, and took the opportunity of expressing his opinion on the reality of the bacillus of tuberculosis, and on its value in relation to diagnosis, prognosis, and the preventive treatment of the disease. Professor Sée considered that the discovery of the bacillus in this affection was of the utmost importance, as whenever its presence was detected in the matter expectorated, pulmonary tuberculosis might with certainty be diagnosed, even before the disclosure of any other physical sign, for this micro-organism is not discoverable in any other pulmonary affection, whatever be its nature or origin. M. Sée dwelt upon the importance of this sign, as by a knowledge of this fact the physician might, by early treatment, be enabled to prevent the development of the disease, not by attacking the bacillus, which is unassailable when once in the organism, but by placing the patient in such a condition as would enable him to effect the destruction of the parasite, or at any rate to resist its baneful influence on the system.

Three distinct points in reference to tuberculosis in birds came out from facts explained at a recent meeting of the London Pathological Society by Mr. Sutton and Dr. Gibbes. The first is that although in grosser anatomical features the lesions differ markedly from those of human tuberculosis, yet, histologically, the resemblance is close, and in the universal presence of the bacillus apparently complete. Precisely the same may be said of the relation between bovine tuberculosis and the human disease; and, granting Koch's assumption that the bacillus is the test of tubercle—a postulate which is not yet universally accepted—the significance of the resemblance is apparent. Another fact is the singular limitation to the granivorous species of birds, associated with the almost general starting-point of the disease being in the alimentary canal. Dr. Ribbert's testimony here also comes in confirmation; and the suggestion is unavoidable that there is some connection between the ingesta and the morbid change—that the virus, in other words, enters the body with the food. Lastly, and in striking parallelism with the foregoing, is the evidence obtained of the transmission of the disease to animals fed on the tuberculous tissues of the bird. It is obvious, then, that several points are raised in connection with this subject which have a very wide bearing indeed, not only upon the pathology of tuberculosis and the precise significance of Koch's discovery, but upon the far more important matter of the transmission of disease through food.

In the *Bayerisches ärztliches Intelligenz-Blatt*, Dr. Herzerich reports the history of two girls, sisters, aged respectively fifteen and three months, who after being nursed by an undoubtedly phthisical mother—the first for five months, the second for three—were reared and fed on soup, milk, and pap. The mother adopted the following disgusting method of feeding: She first chewed the food herself, then spat it out into a spoon, and gave it to the children. So long as she had little expectoration the children bore this feeding well; but so soon as her expectoration became abundant, although the children continued to take their food with appetite, they both rapidly emaciated; ulcers formed in the throat and insides of the cheeks, some large and of irregular shape, others small and round, both with infiltrated edges; and extensive swelling of the lymphatic glands occurred. Severe fever, putrid diarrhœa, and progressive atrophy caused the death of both children within a month of one another. The *post-mortem* appearances were the same in both. All the mediastinal lymphatic glands were swollen and caseated; caseous nodules occurred under the pleuræ and scattered throughout the lungs, also in the liver, spleen, and of smaller size in the kidneys. The mother survived the children for some months, and died after extensive destruction of the lungs had occurred. It is worthy of remark that her children by a former marriage showed no sign of phthisis; also that the two children in question, so long as they were suckled by a comparatively healthy mother, remained themselves healthy.

BLOOD-LETTING IN THE TREATMENT OF SEXUAL DISORDERS.—In *The Practitioner* for February, 1884, Dr. Alexander Harkin claims to have obtained immediate and permanent results from blood-letting, or cupping, over the occipital region, in various functional disturbances of the generative apparatus. In spinal neurasthenia fol-

lowing masturbation, in seminal losses due to other causes, in irritability of the bladder without actual catarrh, and in similar disorders, he extols the salutary influence of this topical remedy. He argues that most of these pathological states are to be regarded as true neuroses, depending largely upon a hyperæmic condition of the medulla oblongata. In the milder cases he relies very much on the effects of bromide of potassium and the extract of belladonna, with cold douches to the nape. Before proceeding to wet cupping, which in every case it is not convenient to adopt, he tries the effects of dry cupping, frequently repeated, or of a blister "nuchæ collis."

The Use of Collodion in Acute Orchitis and other Conditions.—Collodion is not adequately appreciated and utilized, according to Dr. Gamgee (*Birmingham Medical Review*, January, 1884). Its ready evaporation and contraction give it the dual antiphlogistic power of refrigeration and compression. In acute orchitis, for example, Dr. Gamgee knows of no plan of treatment so simple, rapid, and satisfactory as coating the cord and scrotum with layers of collodion by the aid of a camel's-hair brush. The sensation is momentarily sharp, the shrinkage rapid, and so is the subsidence of the inflammatory process. To swollen parts which cannot well be bandaged, collodion is especially applicable for the compression attending its contraction.

When the nasal bones are fractured, a very effective mould for keeping them immovable, after adjusting them with the fingers, may be thus made: place over the nose a thin layer of absorbent cotton soaked in collodion; as it dries, another layer of cotton and more collodion, taking care that the application extends sufficiently on each side to give buttress-like support. The patient compares the feeling to the application of a firm bandage on the nose, and the bones consolidate effectively under the shield, which may be renewed as it cracks and peels off.

The Prolonged Use of Jaborandi in Bright's Disease.—Dr. F. A. O'Brien, of Atlanta, Ga., sends us a communication, in which he calls attention to the beneficial action of jaborandi, given in small or moderate doses, for a long time, in the various forms of albuminuria classed under the head of Bright's disease. He has found that the drug is better borne when combined with nux vomica than if exhibited alone. In his opinion the action of jaborandi is not to be explained solely from its sialogogue and diaphoretic effects. He believes that it has a specific influence on the kidneys, permitting the tubules to relieve themselves of the inflammatory products that block up their lumina.

Non-medicinal Treatment of Habitual Constipation.—There is scarcely a derangement that physicians are more frequently called upon to treat than habitual constipation. It is notorious that drugs often result in temporary benefit only. Besides, the appetite suffers as frequently in consequence of their repeated employment, as owing to the derangement of the bowels. Dr. Atkinson recommends a simple plan, from which he has generally obtained good results. Although it is neither original nor new, its systematic employment is not generally insisted upon to the exclusion of salts, pills, and the like. In order to get the bowels relieved in the first instance, it is well (*The Practitioner*, January, 1884) to give five grains of both compound colocynth and compound rhubarb pill at bedtime (this rarely requires to be repeated), then to take a tumblerful of cold water the next morning on waking, and repeat it regularly at the same time each day. Should the bowels remain sluggish for some time, the same quantity of water may be taken daily before each meal. Supposing no action takes place on rising or shortly after, a small injection of warm water may be resorted to. After each movement of the bowels a small hand-ball syringeful of *cold* water should be thrown into the rectum and retained. A soup-plateful of coarse oatmeal porridge (made with water and taken according to the Scotch method, viz., by filling half the spoon with the hot porridge and the other with cold milk) each night at bedtime, or even every night and morning for a time, is often a very great help. But above all things it is necessary for the patient to *try* and get relief at a certain *fixed* time regularly every day. If these directions are strictly carried out in their entirety, the evil, even if it has been of long standing, will generally be corrected, and the patient will improve in health and appearance.

Epileptiform Fits caused by Prolapsus Recti.—Dr. Shmigiro reports the interesting case of a gentleman, aged thirty-three, who for three years suffered from epileptiform fits of gradually increasing severity and frequency. Of late the seizures began to come several times a day, and were followed by general weakness, irritability, mental depression, giddiness, headache, and failing of sight. Examination gave entirely negative results as far as the nervous system was concerned, but a constantly occurring prolapsus recti was found. As the patient stated, he had suffered from occasional prolapsus since his childhood, but during the last few years the intestine fell out more frequently, and bled more profusely than before. Various anti-epileptic means having remained successful, the patient underwent an operation for prolapsus. The fits disappeared.—*London Medical Record*, December 15, 1883.

Exfoliative Marginal Glossitis.—This is the name given by M. Fournier (*Jour. de Méd. Prat.*) to a peculiar and relatively rare inflammation of the tongue, well described in a monograph recently published by M. G. Lemonnier. It is found most frequently in children, but may be observed also at an advanced age. The causes are obscure. It has been considered as a syphilide (Parrot); but the relation is far from constant, and the same may be said of dyspepsia and malnutrition. Some of M. Lemonnier's patients indulged in excessive use of tobacco or of alcohol; others had suffered from nervous diseases, rheumatism, or herpes. The three characteristic symptoms of the affection are: an irregular and sinuous patch of superficial inflammation and desquamation; a raised margin of whitish or grayish color surrounding the diseased part; a tendency to migration, causing the lesion to change its form and seat very rapidly. It is either unilateral or bilateral, and is never accompanied by pain, so that it may remain for a long time undetected. It has often been confounded with the glossitis of smokers, cachectic glossitis, and some forms of mucous tubercle. Cauterizations have no beneficial effect. The best treatment consists in the avoidance of irritating food and drink and in the use of soothing applications or pulverizations.

Affections of the Pleura in Diseases of the Female Organs.—Acute pleurisy has for a long time been recognized as a complication in certain acute inflammatory affections of the female pelvic viscera. Dr. H. Haeckel, of Potsdam, has recently made some observations on pleuritic effusion occurring as an undoubted result of chronic ovarian and uterine disease. In all the cases which could be accurately examined by Dr. Haeckel, the inflammatory process had extended into the pleura from the peritoneum, and doubtless through the well-known communication of the cavities of those serous membranes through the lymphatics of the diaphragm. As in such cases, when an ordinary ovarian tumor exists, the pleural effusion is a result, the removal of its cause—namely, the tumor—is directly indicated, and in cases where this has been done the effusion has disappeared. But if there be good reason to believe that the tumor is malignant, then "the existence of pleurisy, in which abundant carcinomatous elements are possibly to be recognized, implies that cancer has already scattered its deadly germs far and wide, so that it is no longer possible to extirpate the tumor radically."

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THE STATE OF THE QUESTION REGARDING AN INDEPENDENT LICENSING BOARD.

THE Committee on Public Health has reported back unfavorably the bill to establish a medical faculty of the State University.

This is what has been expected. It does not signify that the Legislature is opposed to such a bill, but it is a recognition of the fact that the medical profession of the State is not yet ready to say what kind of a law it wishes.

Nothing will now be done upon the subject of medical legislation for a year. But it is the duty of the profession, meanwhile, to ponder over the subject, and to be prepared to act intelligently and decisively at the end of that time.

It will be proper for us to present now some of the points bearing upon the matter.

It is almost universally conceded by the thoughtful men of the profession that some kind of State legislation is needed, and is proper. The reasoning of those who claim that medical legislation always has been and must be futile has been abundantly answered, and need not be discussed here.

We have in the State fourteen chartered medical schools, which graduate annually between eleven and twelve hundred students. The proportion of graduates to matriculates ranges from twelve to forty-nine per cent. The duration of study, the arrangements of courses, the preliminary requirements, all differ very widely. The stringency of the final examinations also varies extremely. The result is that students who fail at one place can succeed at another, and that any young man, no matter how deficient his education, poor his morals, or meagre his intellect, can probably get into the medical profession through some one of its fourteen portals.

We have been accused of "poisoning the minds of the profession" as regards the medical colleges, but it can hardly be said that in the above anything but the truth has been stated. And we can, perhaps, safely add that every one of the State's fourteen colleges is a business institution, run in the interests, primarily and above all, not of the public and profession, but of its faculty and owners.

The logical result of all this is, first, that a great many persons are induced to take up the study of medicine who are not fitted for it, and secondly, that a great many persons are graduated in medicine who have not had the training or character that would make them, as physicians, safe members of society. Finally, owing to the business necessity under which the colleges lie, of having plenty of students, an extraordinary surplusage of physicians is forced upon the community.

It can be urged that doctors have no right to be protected by the State against over-competition. This may be true, but doctors do have the right to try and prevent the ambition of a certain small proportion of their guild from injuring the rest; and the State has a right, and is in duty bound to see that the medical men who assist in its executive and judicial functions are competent for their work.

It may be still further urged that such reforms as we need can come from action by the regular profession itself, without State help. But most decidedly this is impossible, because the worst evils are the result of the activity of men outside of the regular ranks. Nothing is more silly than to suppose, for example, that our State Society, by appointing committees to visit around and listen to examinations, can do any radical good. And no proposition could better show the absolute ignorance or insincerity of certain college men, who speciously argued for such a measure. Such visitors could only attend the regular schools, and their visits, if really inquisitorial, would simply give an impetus to institutions not visited. On much the same footing would be the establishment of a State Faculty with simple advisory and visiting powers.

Those who conscientiously wish reform, then, will oppose any attempt to compromise on visiting committees from the State Society or from a State Faculty.

Let us have no reform rather than any farcical pretences to it.

Again and again the profession has returned to the opinion that the best single measure which we can now adopt to improve the status of medical affairs is to take away the licensing power from the medical colleges, and entrust it to a separate and independent Board. The arguments against this proposition, which THE RECORD has consistently advocated for many years, are all of them directed, not to the principle, but to the details.

Such a licensing board, it is said, will get under political influence; it will have to be mixed in character; a competent board cannot be selected; they cannot judge of the students' capacity or qualifications; they will be under the same (money) temptation, to give licenses too freely, as are the college faculties. All these arguments were presented with great force to the Legislative committee by the joint body representing the World's Dispensary, the United States Medical College, and Distinguished Institutions in this city.

But, on the other hand, it is said that the function of the colleges is to teach, not to license, and harm has come because they have done both; a separate licensing body would compel the weaker colleges to adopt a better standard. Furthermore, the existence of such a board would deter uneducated and unscrupulous men from rushing into medical colleges, thinking (as is the fact) that they can get a license to practice in eighteen months; if it did not at first raise the educational standard in the best colleges, it would certainly raise the average, giving to the State one licensing body with strict requirements, rather than fourteen of the present most variable and

elastic kind; it would also keep out from the State in future the unkempt products of western and foreign diploma-mills.

The advantages that would thus accrue would undoubtedly overweigh certain objections and defects inevitable to a new system. No bill can be drawn up which will prove entirely acceptable.

We urge upon the profession of the State to accept no visiting-board compromises, or any similar delusions of reform, and to ponder well whether a single independent, non-teaching licensing board would not be an advantage to the State and profession.

THE MODERN SURGEON IN SEARCH OF NEW ORGANS.

In the march of time and the progress of science it has come to pass that the human body has been pretty thoroughly explored. One after another its different organs have been discovered by the indefatigable anatomist, and have in turn had various functions assigned them by his hypothetical friend the physiologist. Indeed the modern anatomist must be content to enumerate and describe the findings of his enterprising ancestors. Of course the physiologist will continue to invent functions until the human species shall have become extinct. He being a man of genius, and as such subject to imaginative inspirations, nobody will attempt to dispute this exercise of a proud prerogative.

Of late years, however, the new surgeon has come to the van of professional enterprise. And his daring exploits already threaten to eclipse the fame of the physiologist. But here is this difference between their respective methods. Whereas, the latter was content to supply an organ with a pleasant outfit of functions, that had no perturbing effects upon the economy, the new surgeon only feels happy when he has radically removed an organ, leaving the distressed function, now made homeless, to wander at large. Of course this has given an immense stimulus to the propagation of knowledge concerning vicarious action. So that, all things considered, surgeon and physiologist may continue to live at peace for several years to come.

It is the pedantic anatomist, however, who is becoming alarmed at recent surgical triumphs. For how can he hope to give a satisfactory demonstration of visceral topography, in the old sense, when a person's internal arrangements have been radically altered, or successfully operated away by the perfected apparatus of the new-time surgeon.

Yes, the quite modern surgeon is a bold, bold man, thoroughly imbued with the spirit of iconoclastic radicalism; and this fundamental truth would appear to hold good all the world over. But among all his brethren the palm for boldness may be readily conceded to the German variety of novel operators. It would certainly seem as if no tissue, organ, or system were quite safe from his depredations. His chief regret is that there is such a paucity of extirpable material within the compass of a single body. Nature has turned out of her mysterious workshop an apparently satisfactory creature called man. Superficial contemplation is content to pronounce him a success. In fact, even in his present shape he has been admired by certain shallow, old-fashioned people. But the new surgeon can improve upon this imperfect being. What with a judicious and prolonged course of cutting, stitching, pruning, and extirpating, we may presently hope to be able to supply the world with a better race of men and women than unaided nature can ever furnish.

Among the radicals, then, the chirurgical problem of the hour is to determine exactly with how few organs, and with what minimum remnant of these, the vital functions may continue to be performed, long enough for the publication of the individual case as illustrating a new triumph of operative skill. And to be sure a patient with any sense of the decencies and proprieties of civilized life will survive until his case has been duly chronicled. After that, he is of course at liberty to join the shadowy army recruited from the ranks of victims of successful operations.

In view of this pleasant condition of things we may inquire, what has the surgical revival of the past few years mainly taught us? To begin with, it has been demonstrated that one kidney is amply sufficient for the elimination of a satisfactory quantity of urine. Therefore, take out the other emunctory. Doubtless the bladder is at times a quite convenient receptacle. But it is a luxury rather than a necessity. A rubber bag will do just as well. Hence substitute rubber bags for your bladders, and you will not be troubled with catarrh and stone. The womb, it must be admitted, seems a rather essential contrivance, especially where offspring is desired. Yet surely we can manage to get along without it. Neither it nor the ovaries should be allowed to forget that they are mere tenants in a body landlorded over by the advanced surgeon.

Evidently the occasional removal of such appendages can only have a purifying effect upon the moral tone of life below the diaphragm.

As for the spleen, since it has no particular office to fulfil in the economy, the sooner we dispense with it altogether, the better. Let the spleen be taken away immediately after birth. And then the stomach. As we grow more familiar with this puffed-up œsophageal diverticulum, we can no longer hide our contempt for its unpardonable intrusion into a cavity already overcrowded and replete with bloated ballast. To be sure the stomach is the pet of the glutton, of the man whose god is his belly. But what of that? Think of the rectum. Is that delightful portion of the alimentary canal to be a mere channel for the extrusion of effete rubbish. Not at all. Its powerfully absorptive mucous membrane brooks no neglect. Therefore feed by the rectum, and take out the stomach. You need not after that pay the doctor for curing its aches.

The extravagant length of the intestine is an intolerable reflection on the department of the human interior. Exsect it and avoid colic. The bulky liver is an ever-galling weight in the right hypochondrium. Cut it early and often, if you wish to prevent jaundice.

Gallstones or no gallstones, all must admit that, cholecystotomy is more necessary than vaccination. The wasteful superfluity of lung-tissue has already been demonstrated by the German pulmonic exsector. Breathing is much easier with one lung in alcohol.

Our multitudinous nerves, it is almost needless to say,

require frequent neurotomy and neurectomy. Let us hasten to take away altogether at least half of them. The others can be stretched to suit individual tastes. Neuralgia will thus speedily become obsolete.

And the brain, finally. Of all compound lobular inventions the most useless, as your very modern surgeon endeavors to show. He can devise new operations with his lobus Spigelii. What need, then, of a bone-encased labyrinth of lobes and fissures, that even the neurologist vainly endeavors to assort, label, and memorize, all in purest Greek?

These brief suggestions suffice to indicate the scope of advanced surgery. The prophylactic era of medicine is everywhere upon us. Shall there be no further dawn of new light for the operator? Shall his keen blade rust until a tumor actually forms? By no means. Let him rather be the destiny that shapes our ends to suit modern requirements. We may then hope to soon attain that degree of perfection which the evolutionist says is in store for us.

THE ANTIPYRETIC TREATMENT OF TYPHOID FEVER IN PRIVATE PRACTICE.

THE antipyretic treatment of typhoid fever has been the subject of discussion at two recent sessions of the London Medical Society. Many interesting facts were brought out, but no definite conclusions were reached. Dr. Bristowe made the severest attack upon the antipyretic method. It had, he said, been abandoned at St. Thomas' had failed at Guy's and other London hospitals, and had been given up largely also in Germany, except by those whose reputations were bound up in sustaining it. Dr. Samuel West brought forward objections to this method also, and Dr. F. Taylor showed that in Guy's Hospital the mortality among 440 cases not treated antipyretically was 17.7 per cent., while that among 100 cases treated with cold sponging, baths, or Leiter's coils, was 27 per cent. It was shown also that the mortality statistics varied greatly in different years, without respect to treatment.

On the other hand, Drs. Coupland, Cayley, and Broadbent brought forward some very convincing arguments in favor of antipyretics. The following figures were given:

Hospitals.	Cases treated by antipyretics.	Mortality, per cent.	Cases not treated antipyretically.	Mortality, per cent.
London Fever Hospital	355	14	550	17
Middlesex Hospital	...	..	152	11
Charité (Berlin)	2,086	13	2,228	18
Prussian Army Hospitals	...	9.7	...	15
Jaccoud's collection of 80,000 cases	...	11	...	19
Guy's Hospital	100	27	440	17.7
St. Bartholomew's Hospital	...	..	1,668	16.9
St. George's Hospital	...	..	281	24

These figures do not of themselves make a decisive showing, but on the whole tend in favor of antipyretic measures in hospital practice.

The important question arises, however, as to the practicability of using these measures in private practice. It is claimed that Brandt's army statistics are really those of private cases, and show how favorably his method works in this class of patients.

It is to be regretted that our learned professors and servants have so far paid such little attention to what is, after all, the question of main interest to the general practitioner and the public. Are antipyretic measures applicable and successful in private practice?

So far as we can learn, one of the first to obtain facts and statistics upon this point is Dr. G. C. Smythe, of Indianapolis, Ind. In an article published in the *Canada Medical Record*, he states that he has collected one hundred and fifty-seven cases in the practice of himself, Drs. J. R. Featherstone, W. H. Vanzant, and S. E. Earp, all Indiana physicians. The patients were treated with cold sponging, the pads, and baths. Only three deaths occurred, or 1.9 per cent. Hemorrhages occurred in six cases and relapses in eight.

Dr. Smythe's statistics are very striking and contrast strongly with those of Guy's Hospital, where the mortality was 27 per cent. under more or less similar methods.

It is claimed by some that no serious obstacles exist to the employment of external antipyretics in private practice. This, however, is not the case. In order to have the cold sponging effective there must be one or two intelligent and conscientious nurses. For the baths, large bath-tubs, and strong and careful assistants are needed. In very many cases, therefore, these measures for reducing temperature cannot be employed, and we fear that the antipyretic method in many cases means simply large doses of quinine and some desultory sponging. It may be, however, that with Leiter's coils or cold air, the object can be accomplished.

In conclusion, there is no object better worthy of collective investigation than the one we have discussed. There are plenty of hospital statistics, but we need more facts from private practice.

THE FOOT-AND-MOUTH DISEASE—CONTAGIOUS ECZEMA.

DESPITE some contrary statements it appears probable that the disease which has appeared among the herds of Kansas is contagious eczema, or the foot-and-mouth disease. The latest opinion is that it was imported from England by means of the stable clothing of two Scotchmen. Foot-and-mouth disease has been several times imported from England, and once from Canada, during the past few years. It has, however, never before got among the cattle in the unfenced ranges of the West. Hence, as it is perhaps the most highly contagious of all cattle diseases, the condition of affairs is a serious one.

Foot-and-mouth disease is defined by Williams and by Steele as a highly contagious and infectious febrile disease, associated with a vesicular eruption in the mouth, between the pedal digits, and around the coronets. It affects cattle chiefly, but also sheep, pigs, dogs, poultry, and even human beings.

After an incubation of one to four days the animal is attacked with fever, there is a constant moving of the mouth, salivation, and lameness. Large vesicles appear, from which the cuticle may be thrown off, leaving raw and even suppurating spots. Sometimes the suppuration becomes deep, and the hoofs are lost.

Ordinarily foot-and-mouth disease is not a severe malady, and the animal recovers in about a week.

During this time, the milk secretion is diminished and rendered unhealthful, if not positively contagious. The flesh is also made poorer, but is not believed to be injurious.

The cause of the disease is thought to be in some minute organism, but this has not yet been satisfactorily demonstrated.

DEATH FROM THE RUGBY GAME OF FOOT-BALL.

THE *British Medical Journal* quotes our editorial upon foot-ball casualties and adds, "Of the very great danger which attaches to the Rugby game, we have often had sad proof."

It then refers to the case of a young man who was recently fatally injured during the game, dying either from a fractured skull or a ruptured artery. This is by no means the only case of the kind.

The Rugby game of foot-ball may answer for small boys who cannot kill each other, and for trained athletes who can take care of themselves. But as a game for amateurs and students it is brutal and dangerous, and does not furnish proper physical exercise to those who need it.

It is proposed that the athletic training and general physical education of college students be put under the charge of a medical man. If this is done, we trust that efforts will be made to substitute a more rational game for the "Rugby" one—which is fascinating because it is a kind of free fight, not because it is an exhibition of skill.

THE ATTEMPTS TO FIND NEW FORMS OF PROTECTIVE VIRUS.

GERMANY has earned the credit of instituting the most careful methods of examining the minuter organisms and of studying their life-history. The French *savants* are, on the other hand, using their energies in trying to modify these organisms so as to obtain protective virus. The methods adopted already are various, and it seems probable that a process which succeeds with one organism will fail with another. Pasteur's original method of cultivating germs at a constant heat, and exposing them to the action of oxygen, though scientifically successful, has proved a practical failure outside of France. The dilution method suggested by Chauveau, followed by Peuch and others, and perfected by Salmon of this country, has apparently been abandoned in France. Recently the method of modifying anthrax virus by subjecting it for a short time to a certain temperature has been tried again. The method of passing the virus through animals of a different species to that usually affected by it, has been tried both in France and England.

At the last meeting of the Académie de Médecine, M. Pasteur announced some important results of the application of this method to the virus of hydrophobia.

M. Pasteur has found:

1. That the spinal cord and medulla, as well as the nerves of dogs dying of rabies, contain the virus.

2. That this virus cannot be cultivated in any liquids so far tried.

3. That the inoculation of small quantities of the virus prolongs the incubation, and if the amount inoculated is very small, the dogs are not affected. This seems to show that in hydrophobia the dilution-method will not furnish a protective vaccine.

4. The action of cold does not modify the strength of the virus.

5. The virus is absorbed by the blood.

6. That the passage of the virus through different kinds of animals causes a modification in its virulence.

M. Pasteur stated that he had in his laboratory twenty-three dogs whom he had rendered insusceptible to the hydrophobic poison, by inoculating them with the modified virus.

DELEGATES TO THE AMERICAN MEDICAL ASSOCIATION.

AN opinion prevails somewhat, that, by reason of the action of the Medical Society of the State of New York, the medical profession of this State has been cut off entirely from the privilege of sending delegates to the American Medical Association.

This opinion is erroneous. It has been used, however, as an argument in favor of establishing new medical societies in various parts of the State, although it is a fallacy. The necessity has not yet arisen, nor is it probable that it will arise, for the organization of independent medical societies, in order to have the power to send delegates to the American Medical Association, *except* in those counties where the medical societies heretofore existing have declared their adherence to the Code of Ethics adopted by the Medical Society of the State of New York.

This view we have already expressed, and it has been sustained by the action of the American Medical Association, and now its *Journal*, in an editorial, March 8, 1884, announces that, "as a large proportion of the county societies in other parts of the State" (speaking of New York), "*have adhered to the national code, and thereby preserved their right to representation in the national organization*, it is probable," etc.

Those county medical societies, therefore, throughout the State, which have adhered to the national code, have *not* been cut off from the right of representation in the American Medical Association, as has been so frequently stated.

The editor also says: "We learn from a reliable source that the new State and County Medical Associations in New York are prospering beyond the anticipations of their warmest friends." Just how warm that is cannot be estimated readily; but certainly a very high temperature will be required to transform a glittering generality into a sure foundation.

THE LOST MEDICAL WORK.—Dr. J. H. Aveling writes to the *British Medical Journal* that a copy of Woolveridge's *Speculum Matricis*, 1671, of which it was supposed that Dr. Fordyce Barker had the only copy, exists in the Radford Library of St. Mary's Hospital, London. The book was the first English treatise on midwifery. Dr. Barker loaned his book to a French copyist, who has disappeared and may be dead. It is not thought that he was dishonest, however, and the book may yet be found.

News of the Week.

National Medical College, Washington, D. C.—The sixty-second annual commencement exercises of the National Medical College (the Medical Department of Columbia University, Washington, D.C.) took place on Thursday evening, the 20th inst., graduating fourteen M.D.'s. It was announced that thirteen gentlemen had also passed a satisfactory examination on the primary branches.

Medical Department, University of Georgetown, D. C.—At a meeting of the Faculty of the Medical Department of the University of Georgetown, D. C., on the 13th inst., a committee of three was appointed to report a plan for the procurement of a suitable building for college purposes.

Death of Dr. Lunsford P. Yandell.—We learn with the most profound sorrow that Dr. L. P. Yandell, editor of the *Louisville Medical News*, died suddenly on March 12th, in the forty-seventh year of his age, from paralysis of the heart. Although in poor health for several years past he kept bravely at his work, up to almost the hour of his death, passing away, honored, beloved, and mourned by all who knew him. He graduated in medicine from the University of Louisville, Ky., in 1857, and subsequently served in the Confederate Army as surgeon—became professor of clinical medicine in the University of Louisville in 1869, and afterward of theory and practice and diseases of the skin in the same institution. Dr. Yandell was a man of fine culture, a graceful and forcible writer, and a most accomplished physician. His death is a serious loss to the medical profession as well as to medical journalism.

Proposed New Hospital in Baltimore.—A bill entitled an act to appropriate a sum of money to enable the Baltimore Medical College to equip and maintain a hospital, to be known as the "Maryland Infirmary and Lying-in Hospital for Indigent Women," has been introduced into the Senate of Maryland.

Another Death from Ether is reported in the *British Medical Journal*, the victim being a laboring man, fifty years of age, who was being operated on at the Gloucester Infirmary for cancer of the gums and throat.

The Centennial Anniversary of the General Hospital at Vienna is to be celebrated in June next.

A Sect of Child Murderers.—The *Allgemeine Medicinische Central-Zeitung* states that a sect of persons has been discovered to exist at Rostov, in Southern Russia, who kill children by narcotic poisons, in order to keep them from earthly suffering and secure them at once heavenly joys. The people are the victims of a religious madness.

A Kindly Act.—Our valuable contemporary, the *Journal of the American Medical Association*, has taken the trouble to fill up two columns with a full translation of a scurrilous and personal attack upon The Medical Record, printed in an obscure and obscene French journal.

The Medical College of Ohio held its annual commencement on March 7th, graduating a class of one hundred.

The Miami Medical College held its annual commencement at Cincinnati on March 6th, graduating a class of twenty-seven.

The Medical College of South Carolina held its annual commencement on March 1st, graduating twenty students in medicine, and three in pharmacy. The College has established a graded course of three years.

The Medical Department of the University of Buffalo held its annual commencement on February 26th. Degrees were conferred upon sixty-two graduates. The address to the graduating class was delivered by Dr. Roswell Park.

The Detroit Medical College held its annual commencement on February 29th, graduating a class of twenty-five.

The Michigan College of Medicine, of Detroit, held its annual commencement on March 3d, graduating a class of twenty-seven.

The International Congress.—President Panum says that the International Congress has its success already assured. More than four hundred physicians have sent in titles of papers to be read.

Medical Berlin.—The Society of Internal Medicine, at its meetings February 11th and 18th, continued the discussion upon "Arsenic in Phthisis." The general tenor of criticism was decidedly against the drug's having any special effect. Dr. Karewski told of a case in which a patient developed acute phthisis while taking large quantities of arsenic. Dr. Thilenius, as the result of long experience, had found it entirely useless in checking the course of the phthisical process, though it improved the general condition. Dr. Leyden had had a similar experience. Dr. Croner reported a case of *nephritis after mumps*. He considered the kidney disease a sequel of metastasis. At the meeting of the Berlin Medical Society, Dr. Zadeck exhibited a case of *pericardial tumor*. Dr. Pohl-Pincus read a curious essay upon the method of *obtaining immunity from infectious diseases*. In an unprotected person the inoculated poison irritates the lining cells of the lymph-paths, which contract, delay the passage of the virus, and lead to induration. When immunity has been conferred, it is because there is something in the virus (anthracin, cholerin, tuberculin, etc.) which modifies the lymph-channel cells; they do not contract, but widen and the poison flows freely along. Dr. Pincus believes that if we can obtain the "tuberculin" from phthisis, immunity can be conferred from that disease.

Medical Vienna.—The Royal Society of Physicians met on February 15th, under the presidency of Billroth. Professor Neumann related the histories of two cases of *syphilitic inflammation of muscle*. He referred to the rarity of the disease, and the two forms in which it appears, diffuse and circumscribed. Dr. Kassowitz described the so-called pseudo-paralyses in children suffering from hereditary syphilis. He ascribed the symptoms chiefly to bone disease. Professor Billroth asked if the two symptoms of syphilitic myositis, viz., pain and contraction, might not be due to bone disease. Professor Billroth made an address in which he described the *formation of cysts in bone*.

A NEW MEDICAL COLLEGE IN CINCINNATI.—It is reported that a new medical college has been organized in Cincinnati, under the title of the Medical University of Ohio. This will make the fourteenth medical college in the State of Ohio.

MEDICAL PARIS.—At a meeting of the Académie de Médecine, February 26th, M. Pasteur read an important paper relative to the *virus of hydrophobia*. This is referred to elsewhere. After a discussion upon the lunacy law, Dr. Albert Robin read a paper upon carbolic acid in typhoid fever, and Dr. Gouguenheim a paper entitled "Anatomy and Pathology of the Peri-tracheo-laryngeal Glands." These glands lie, he said, behind the larynx, trachea, and œsophagus, in the immediate neighborhood of the recurrent laryngeals. As a result of twenty dissections, he had found that they lay in three groups forming a chain. These glands are liable to become hypertrophied in the tuberculous, the cancerous, and the syphilitic, causing symptoms from pressure. At a meeting, February 22d, of the Société Médicale des Hôpitaux, M. Martineau stated that his *syphilitic moulsey* had developed symptomatic epilepsy.

THE BUFFALO (N. Y.) OBSTETRICAL SOCIETY has been organized. The following are the officers elected for its first year: Dr. W. W. Potter, President, Dr. R. L. Banta, Vice-President, and Dr. S. T. Howell, Secretary and Treasurer. It holds meetings monthly.

NEW YORK POST-GRADUATE MEDICAL SCHOOL.—Dr. Edward Kershner, U.S.N., has been appointed Professor of Naval, Military, and State Hygiene. Dr. G. F. Whiting has been elected Professor of Laryngology, and Dr. W. D. McKim, Professor of Operative Surgery.

OUR IRRITATED CONTEMPORARY *Le Moniteur de la Policlinique* has returned to the attack, and gives another editorial, entitled "La deuxième aux Yankees," which means that he plays the deuce with the Yankees. This time, however, he devotes himself to our esteemed and irreproachable contemporary *The Philadelphia Medical Times*, and more especially to its "rédacteur, Dr. Thornton Parker." This bad and bold man has written an article upon epilepsy, which, says the *Moniteur*, is nothing but a paraphrase from a work written by the editor of said *Moniteur* in 1875. "Have we not reason to say to THE MEDICAL RECORD: You do not read us, and vous nous pillez sans vergogne!" concludes the *Moniteur*. We trust that the new "rédacteur" of the *Medical Times* will explain.

DR. CHARLES F. STILLMAN, of this city, at the last meeting of the Hudson County Medical Society (N.J.) delivered by invitation a lecture on "Backward Traction in the Treatment of Caries of the Spine." The points made were, first, fixation, secondly, symmetrical traction, and thirdly, backward traction.

PROPOSED MEDICAL LEGISLATION IN MARYLAND.—A bill has been introduced into the Maryland Legislature providing for the regulation of medical practice. The bill is based upon the law of West Virginia, and makes the State Board of Health an Examining Board.

A committee of citizens have also memorialized the Legislature to act upon the following, according to the *Maryland Medical Journal*. 1. The enactment of a comprehensive law for the registration of vital statistics in the State. 2. The enactment of a general law to prevent the pollution of watercourses, etc. 3. The enactment of a law for efficient Boards of Health. 4. The enactment of a law providing for a sanitary survey of the State. The State Society has petitioned the Legislature to establish an institution for the care and training of the feeble-minded and idiotic.

HONORS OF MEDICAL MEN.—Dr. Vidal, of Hyères, France, has been made Knight of the Legion of Honor; Surgeon-General William G. Hunter has been made Knight of the Order of St. Michael and St. George.

BELLEVUE HOSPITAL MEDICAL COLLEGE COMMENCEMENT.—The Annual Commencement of Bellevue Hospital Medical College was held on March 13th, at Steinway Hall. Dr. Isaac E. Taylor, the President of the Faculty, conducted the exercises, and upon the stage were the Trustees and Faculty of the college, Commissioner Brennan, Algernon S. Sullivan, Dr. Lewis H. Sayre, Professor Charles A. Doremus, the Rev. Dr. Alfred Beach, and other prominent gentlemen. Diplomas were bestowed upon one hundred and forty-nine graduates. The four leading scholars were given appointments in Bellevue Hospital. Mr. Algernon S. Sullivan delivered the address to the graduates.

DISTRIBUTION OF MEDICAL STUDENTS.—Of the 9,700 medical students in 1882–83, in regular medical colleges, 2,146 were in New York colleges. After New York comes Pennsylvania, with about half the number (1,088), then follow Illinois, 900, Ohio, 800, Missouri and Kentucky, each about 600. In homœopathic students Illinois is far ahead of any other State, having 422 matriculates. Then follow Ohio, 197; New York, 187; Pennsylvania, 147; Massachusetts, 109.

PROFESSOR SCHIFF AND AN ANTI-VIVISECTOR.—One Madame Kingsford, who signs herself a doctor of the Faculty of Medicine of Paris, published in Geneva an article against vivisection, which among other things contained the following: "M. Professor Schiff, who has been a vivisector for thirty years, said he never used anæsthetics, properly speaking, but only stupefacients and narcotics, which he injects into the circulation." In reply to this Professor Schiff wrote to the *Journal de Genève*. He says that "Madame Kingsford made a short visit to his laboratory and asked him, among other things, if he *chloroformed* his subjects." Schiff replied, "No, madame, I *etherize* them, for I believe that ether is the most perfect anæsthetic, and ought to be used upon animals as well as men." He concludes: "Madame Kingsford cannot have forgotten this conversation; and there is but one alternative—either she has uttered a calumny or else she does not know that ether is an anæsthetic." In reply to this Madame Kingsford has published another statement reiterating her first charge.

ADVERTISING DOCTORS.—We are glad to find a Philadelphia contemporary joining warmly in the condemnation of the present tendency by medical men to advertise improperly. We only wish that the following sentiments were felt more keenly elsewhere. The *Medical News* says: "In this eager striving for notoriety rather than the just honors of the medical profession, do we not discern the need of maintaining a high standard of ethical requirements? Abate in any respect our regard for the

proprieties of professional life, and see the consequences. Remove one stone, and the whole edifice tumbles about our ears. Allow these forms of advertising to obtain a footing of the slightest tolerance, and the newspapers will not have space enough to accommodate the multitudes eager to display their wares. What, then, will be the position of the medical profession?" Yet the American Medical Association says, as interpreted by its editor, that "a doctor can publish and circulate his professional cards as freely as he likes!" We have already been asked whether a physician could not have his professional card and "limitation" neatly posted in the advertising spaces of the street and elevated railroad cars. There is no American code against this. Certainly the permissive sentences carelessly emitted by the American Association "abate in some respect a regard for the proprieties."

Dr. J. H. Douglass, of Utica, N. Y., one of the oldest practitioners in Central New York, died on March 13th, aged seventy-five. He was born in New York City, but during the greater part of his life was a resident of Utica.

THE SIMS MEMORIAL FUND.

To the Medical Profession and Others throughout the World:

The great achievements of Dr. J. Marion Sims call for some more lasting testimonial than obituaries and eulogies. To him medical science is indebted for much brilliant and original work, especially in gynecological surgery. Those who have been benefited by his teachings and new operations, and such as have had the direct advantage of his personal skill are among the first to recognize and acknowledge this debt.

To him is due the honor of giving the first strong impulse to the study of gynecological surgery in America.

It is believed that the medical profession everywhere, the vast number of women who owe their relief from suffering directly to him, and those who realize the benefits he first made possible, will gladly unite thus to honor the man through whose original and inventive genius such blessings have been conferred upon humanity.

At the suggestion of many friends, therefore, the subjoined committee has been organized, and it is proposed that a suitable monument be erected to his memory in the city of New York.

To this end the active co-operation of the medical profession and the many other friends of Dr. Sims throughout the world is respectfully solicited. Contributions of one dollar and upward may be forwarded to the journal which has been constituted the treasury of this fund—The Medical Record, New York.

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OUR LONDON LETTER.

(From our Special Correspondent.)

THE ANTIPYRETIC TREATMENT OF TYPHOID FEVER—THE HOUSING OF THE POOR—THE PROFESSION AND INTEMPERANCE.

LONDON, March 1, 1884.

THE discussion at the Medical Society of London, on the cold-bath treatment of typhoid fever, terminated on Monday evening last. The result of the discussion has been the distinct enunciation of an opinion practically unanimous that the results of this mode of treatment are satisfactory. The dissentients have been few, and their arguments feeble. The plain truth is, that most of the opponents to the antipyretic treatment are to be found amongst those who have either never tried it, or who, having resolved to make trial of it, have carried it out imperfectly and carelessly. Having used it inefficiently in a few cases without good results, they discard a remedy they have never properly tried, and proceed to argue against it. The antiseptic system has been treated in the same way. It is, in fact, only within the last few years that surgeons are beginning to realize that if good results are to be expected from Listerism, it must be carried out in all its details with scientific precision. I have seen so-called "antiseptic operations" done which were not antiseptic at all in the strict sense of the term.

With regard to the cold-bath treatment of typhoid fever, there are, doubtless, cases in which its use is to be deprecated, as even Liebermeister admits. As, however, regards its beneficial action in the majority of cases, I should have thought a careful perusal of the statistics brought forward by Liebermeister, Brand, and others, years ago, would have convinced any impartial enquirer. Drs. Cayley and Coupland now bring an array of statistics founded on British cases, and their conclusions point in the same direction as those reached by German and French observers years ago. The fact is that British hospital patients will not submit themselves unquestioning to any strange mode of treatment, and British physicians do not ape the abrupt manners of the Viennese school. The trouble, too, is considerable, even in well-appointed hospitals, and where many patients are undergoing the antipyretic treatment extra attendants are needed, which means increased expenditure. All things considered, the obstacles to the efficient carrying out of the treatment are numerous, and doubtless this accounts in some measure for the comparatively small scale on which it has been tried. Many English physicians who have fairly tried it, have long been convinced of its value, and all that the recent debate can be said to have done is to give a sort of official seal to an opinion which has long been held by independent and trustworthy isolated workers.

A Royal Commission is to be held on the "Housing of the Poor." They might, with advantage, extend their sphere of operations to the houses of the rich. I have seen sanitary defects as rife in the latter as in the former. Some houses are built as if the chief design of the builders had been to lay on a never-failing supply of sewer-gas. In some cases, though, the builders have never taken the trouble to connect the house drains with the sewer at all.

It is proposed to introduce a bill into Parliament prohibiting the sale of intoxicating liquors by grocers. It is clear that the "Grocers' Bill," as it is called, has proved a failure, and wrought unmitigated evil. The profession of this country will give their earnest support to any measure calculated to lessen an evil of which they see so much. The days of Todd are past, and I believe that no section of the community is more in earnest than the medical profession in trying to stem the tide of intemperance. Certainly no profession has furnished so large a number of scientific advocates for temperance.

OUR PARIS LETTER.

(From our Special Correspondent.)

THE TREATMENT OF DISEASE ON GENERAL AS WELL AS LOCAL PRINCIPLES—SOME POINTS IN REGARD TO THE THERAPEUTICS OF GONORRHŒA—CONCERNING KAIRIN—DANGERS ASSOCIATED WITH THE USE OF SALICYLIC ACID AS A FOOD PRESERVATIVE—THE TOO FREE USE OF CARBOLIC ACID.

PARIS, February 29, 1884.

THAT the local manifestations of disease should be treated on general as well as local principles, is a verity that is now recognized by surgeons, and by even the most confirmed specialists. Dr. Guyon, Professor of Surgical Pathology at the Paris School of Medicine, and Surgeon to the Necker Hospital, and who is besides well known as a specialist for diseases of the urinary organs, lately delivered a chemical lecture on the treatment of chronic urethritis and gonorrhœal cystitis, in which he strongly insisted on this point. Before entering into the therapeutics of these affections, he recalled the attention of his hearers to the anatomy of the urethra, of which he said there were two distinct portions: the one anterior and the other posterior, separated, at the seat of the ligament of Carcassonne, by a veritable sphincter, which divides the canal into two organs, as it were, as they are distinct from each other in their anatomy, physiology, pathology, and even in their embryogeny. In referring to the etiology of chronic urethritis, Professor Guyon stated that excesses in diet and the intempestive treatment of the disease are frequently responsible for the chronicity of the latter. But, at the same time, one should not lose sight of the considerable influence that certain diatheses have upon the progress and duration of the disease, in which case the latter is generally confined to the posterior or membrano-prostatic portion of the urethra. Professor Guyon refutes the opinion that strictures give rise to, or rather keep up, a permanent discharge in the urethra—which opinion is at least exaggerated. He equally refuted the generally received notion that chronic urethritis and deep urethritis were synonymous, as he found in three-fourths of the cases of chronic discharges the secretion was performed in the anterior portion of the urethra, and it was in one-fourth only that the posterior portion was affected. Moreover anterior urethritis is, generally speaking, manifested only by a discharge which is noticed only in the morning, whereas in posterior urethritis frequent micturition is a constant symptom. Under these considerations it is evident that the indications of treatment must depend upon the precise seat of the lesion, its duration, its intensity, and its relation to the diathesis or constitution of the patient, hereditary or acquired. Professor Guyon insisted strongly on the importance of general treatment, according to the constitutional cause originating and keeping up the discharge. Local treatment should also be resorted to, but he condemned injections, as, when employed in the ordinary way, they rarely reached the spot affected. He therefore recommended the direct application of remedies in the form of instillations, cauterizations, and catheterism; but the latter should be resorted to only in obstinate cases, for which purpose he prefers large metallic sounds. Medicated bougies, he found useless.

If injections were prejudicial it was because they were frequently employed without discrimination, as it was the fashion to adopt them whenever there was a discharge from the urethra, without any reference to the cause or stage of the disease. It is in this way that M. Guyon accounts for a great number of cases of cystitis, particularly that accompanied with gonorrhœa, which results not only by extension of the urethral inflammation but by the too early use of injections, which should never be employed in gonorrhœa before the fifteenth day of the disease, and even then they should not be resorted to but with the greatest precaution. In cases of gonorrhœal cystitis M. Guyon advises the daily instillation into the bladder

of ten to fifteen drops of a solution of nitrate of silver (five to ten grains to the ounce), which arrests the bleeding and gives very rapid relief. This treatment is applicable both to recent and chronic cases.

A great sensation has been caused in the medical world by the recent discovery by Professor Fischer, of Munich, of a new substance extracted from coal-tar, to which he gave the name of kairin. From its resemblance to quinine, M. Fischer imagined that its therapeutic properties would be analogous to the time-honored antipyretic par excellence. Considering the continued high price of quinine, it is certainly desirable that some other substance could be found to replace it. Several experiments with kairin have been made in Italy and Germany, and according to the reports published this new substance is the most efficacious, trustworthy, and safest antipyretic that could be employed. It is said to be more powerful and rapid in action than even quinine or salicylic acid. Notwithstanding these advantages, kairin has not yet found much favor in France, although Dr. Hallopeau recently published a very interesting paper on the subject, in which he corroborates the experience of the Italian and German authors just referred to.

Since the introduction of salicylic acid in medicine, and from its known preservative properties, it has been freely adopted in commerce for the purpose of preserving various substances, particularly those concerned in food and drink. It having been reported, however, by the Council of Hygiene, that salicylic acid could not be used daily for any length of time with impunity, the Minister of Commerce has instructed the Prefect of Police to forbid its sale as an ordinary article, and that it should be considered as a pharmaceutical substance only. Articles of food and drink containing salicylic acid will be seized, and the guilty parties will be sent before the tribunal. Alimentary substances imported from foreign parts and which may contain salicylic acid, will also be amenable to the same restrictions.

Carbolic acid is another substance that has been too freely employed in various ways, particularly in medicine and surgery. Dr. Albert Robin lately read a paper at the Academy of Medicine, in which he pointed out the disastrous effects of this medicine in the treatment of typhoid fever. His argument was that a patient suffering from this fever loses more sulphur and potass than a person in health; the quantity of mineral in the system is consequently reduced to a dangerous extent for the proper functions of the tissues of the body, particularly those of the nervous and muscular systems, and as carbolic acid increases the excretion of these two substances it ought to be proscribed from the treatment of typhoid fever. Dr. Robin believes that a great portion of the nervous and cachectic phenomena that are observed in certain cases of typhoid fever may be attributed to the use of carbolic acid. The same considerations, he added, are applicable to the whole group of medicinal substances which are eliminated in the same way as carbolic acid, such as thymol, naphthol, resorcin, benzol, anilin, etc.

Typhoid Fever and the Solar Plexus.—Dr. Leven says that the clinicians who speak of abdominal symptoms in typhoid fever have deceived themselves. As a rule such symptoms do not exist, and if they make their appearance they are due to irritation of the solar plexus by purgatives. The influence of such irritation is easily shown. It suffices to press on the median region of the stomach, and the nervous ganglia of the great sympathetic placed on a line with the navel, about two inches around, will give evidence of pain. Pain on palpation of the iliac fossa has also been erroneously spoken of. Most frequently it is only hyperæsthesia of the abdominal parietes, resulting from irritation of the right sympathetic ganglion. These phenomena furnish one of the numerous contra-indications of purgatives in typhoid fever.—*Prog. Méd.*

REMARKABLE HISTORY ILLUSTRATING THE CONTAGIOUSNESS OF DIPHTHERIA.

To the Editor of The Medical Record.

Some facts which have recently come to my knowledge illustrating the contagiousness of diphtheria, will, I think, interest your readers.

In October last, a child recently brought to the town of Royalton, Vermont, was attacked with this disease. There was no other case in town at the time. A homœopathic physician from the village of South Royalton attended it. The child died. Its mother took the disease and recovered. The doctor's family consisted of himself, his wife, and three children. He took it, and his youngest child, five months old, was also taken sick. His wife came down with typhoid fever at about the same time, and it was necessary to put the baby in other hands. It had no appreciable throat symptoms, but a bad sore on its toe. He did not regard this as diphtheritic, and when a neighbor offered to take it home he allowed her to do so. The family of this neighbor, Mrs. H——, consisted of herself, her husband, two boys of seven and nine years, and a nursing baby. In a few days after the doctor's baby was taken in, her baby had diphtheria and died. Her husband, herself, and one boy also had it, the other boy escaped. The doctor's baby was then handed over to Mrs. S——, who with her husband lived on a hill-top, two miles out of the village where the cases last mentioned occurred. She engaged a young woman, Miss L. S——, to take care of the child. In a few days Miss L. S—— had diphtheria and went home. She lived also out of the village, in another direction. The family consisted of her father and mother, herself and three brothers, adults. Her mother and one of her brothers were taken. She also gave it to another person of whom I will speak later. To return to the little bearer of contagion, the doctor's baby. Mrs. S—— having lost her nurse, handed it over to Mrs. D——, in the village. In Mrs. D——'s family were her husband, herself and three children, the eldest a boy of eighteen, then a girl of sixteen, and a boy of eight. These three children sickened, within a day or two of each other, soon after the arrival of the baby, and all three died within four or five days. The baby was then taken to another town, where it recovered. These events occurred in October and November. Miss L. S——, previously referred to, had a serious illness, followed by paralysis of the palate and ocular muscles, but by December 1st was able to go out of town on a visit. She remained away two weeks. Immediately after her return, an intimate lady friend of hers, not residing in town, visited her, spending two or three nights with her. Five days after, this visitor, Miss H——, had sore throat and diphtheritic symptoms. They were mild, and a week later, as she felt well, with the exception of some remaining soreness of the throat, she went to the adjoining town of Tunbridge, to the home of Mr. C. L——. In this family were four, the father and mother, a girl of sixteen, and a boy of eleven. In four or five days after Miss H——'s arrival, the girl was attacked with a malignant form of diphtheria and lived only a few days. The boy came down next, and then the father and mother. These all recovered.

Royalton is a healthy farming town. There was not another case of any description besides those mentioned, which followed a line of direct communication from the original case through the doctor to his family, through his baby to every family it entered, and finally through a visitor of one of the convalescents to the family in Tunbridge.

Yours truly,

William T. Smith, M.D.

Hanover, N. H., February 23, 1884.

Treatment of Lupus by Injections of Ether.—Dr. Lermoyez, of the St. Louis Hôpital, Paris, recommends the hypodermic injections of ether for the cure of lupus, and reports successful results.

MEDICAL LEGISLATION AND ITS BEARING UPON STATE EXAMINATIONS FOR THE MEDICAL DEGREE.

To the Editor of The Medical Record.

Sir: I take it for granted that the object of medical legislation is to secure, for the use of the people, the best possible medical service. Medical laws benefit the people just as they tend to increase the knowledge and skill of the profession. To obtain the legal right to practise medicine we must pass certain examinations and conform to certain rules and regulations imposed by the State. We seldom hear a voice raised in praise or defence of the present methods by which candidates gain admission to the profession. Distrustful murmurs of its imperfections come to us from every quarter.

To us its imperfections are: the want of some proper standard of preliminary education; insufficient legal time of study; the want of a higher, common, uniform examination for all who enter the profession, conducted independent of interested teaching bodies, with authority to revoke college charters, and license to practise, for sufficient cause.

Two bills were introduced and discussed at the recent meeting of the Medical Society of the State of New York. They were presented to the Society by the committee on legislation, and dealt only with final examinations and the granting of revoking powers; both bills were finally referred back to an enlarged committee for reconsideration. We hope this reconstructed committee will see fit to report a bill at the next meeting of the State Society, proposing some standard of preliminary education that students are known to possess before they enter on their professional studies, and that all medical students shall register themselves as such in the County Clerk's office of their respective counties, their legal time of study dating from such registration.

We all know that three years is too short a time for ordinary minds to master the various branches of medical science. In Europe the legal time of study varies from four to six years. Would it not be well to make the time four years in the State of New York, with a graded course of study? From the animus of the discussion I have been led to think of the two bills as the committee's bill and the college bill. From the eloquence and sophistry evoked in the discussion of these bills, it is evident that the great colleges of New York aim to keep things substantially as they are. For appearance sake, and the more effectually to kill real reform, they have arrayed themselves on the side of reform, but they want little of it.

> "He was a man
> Who stole the livery of the court of heaven
> To serve the devil in."

By parliamentary rules the college bill, to us a bill of magnificent shadows in the totality of its provisions, was forced into the report of the committee against its will—an outside addition to the report of the committee to befog and hoodwink the Society into the belief that its shadows were substance, to postpone and procrastinate all action of the Society, to overrule and set aside a bill of real reform. The college bill provides for the appointment by the Governor of the medical faculty of the University of the State of New York, consisting of nine legally qualified practitioners, not connected with any medical school or college. The committee's bill provides for a like medical faculty, the first nine to be appointed by the Governor, six to be chosen from the regular, three from the homœopathic, and one from the eclectic profession. As their terms of office expire, the different State medical societies are to nominate candidates to fill these vacancies, and from these nominations the regents of the University are to select the new members of the medical faculty. This takes the appointing power out of politics. The other bill gives the appointing power for ever to the Governor. Both bills give power to revoke license to practise, the college bill gives power to revoke a college charter; common law now provides for the same for sufficient cause. Both bills provide and give power to this medical faculty, much in the same manner, to examine students for a license to practise. In the committee's bill this is the only gate of entrance to the legal ranks of the profession in the State. If the college bill stopped here it would be of value, but it closes no old gates, it simply opens a new gate, through which no one would be likely to enter while the old ones remain open. To stop these many gates of uncertain, unknown height and width, that we know not what may squeeze through, is the special object of reform. Equity and justice demand a common examination for all who enter the profession. The medical faculty, as an examining board in the college bill, seems introduced simply as an ornament, an image of reform without expected worshippers, for it allows the colleges to go on conferring degrees with license to practise just as they have done, with this slight exception—a minimum of reform, if it is worthy the name—three members of this State examining board are to be present at the college examinations. "The questions to be addressed to the candidates for degree at such examination shall be submitted to the members ot the medical faculty attending such examination, and all answers thereto shall be open to their inspection." Thus, the duties of the visiting board are simply to look on, while the college faculty conduct and manipulate the examination—figure-heads playing third or fourth fiddle to the faculty, without power or responsibility of any kind, not even required to make a report of their observations.

This sort of censorship is nothing new, it has been in vogue for years and years in some of our colleges, and as heretofore conducted amounts to nothing as a test of medical scholarship. It has never assumed any real responsibility, has never held the reins of examination in an independent way. It has amounted to nothing in the past and nothing is to be expected from it in the future, while trammelled by college influence. Make censors independent and responsible, then they may do their duty.

Prof. Loomis, in the discussion before the State Medical Society, objected to the appointment of homœopathic and eclectic physicians on the State board of examiners. The college bill, of which he was the special champion, and the special dissector of the committee's bill, permits the board to be composed wholly of homœopaths or eclectic physicians, at the pleasure of the Governor—a fine chance for political favoritism. He is a new code man, and would fellowship these gentlemen at the bedside. Why object to their being in the State board of medical examiners? Under the laws of the State, they have a just claim to be there; for the good that is hoped for from legislation, it is eminently proper that they should be there, to defend their own ranks from imposition. If we can lay by our prejudices, and study the medical situation as it is, at the same time keep in in view at least one important point of medical reform—a higher, common, uniform examination, conducted only by one board of examiners, whose license alone confers the legal right to practise medicine in the State—we may think it proper for these gentlemen to have a place in the board. We can see no difficulty in the way of a mixed board harmonizing in examinations, if they are in earnest for reform.

A knowledge of anatomy, physiology, histology, chemistry, general, special, and histological pathology; etiology, symptoms, diagnosis, and prognosis of medical and surgical diseases; the same of diseases of women and children, operative surgery and midwifery, toxicology, a knowledge of drugs and their physiological action, hygiene and preventive medicine, and perhaps pharmacy and medical history might be added. A reasonable acquaintance with all these branches of medical science is a necessity to the educated physician. There is nothing ho-

mœopathic nor eclectic in any of these branches of study, and they are of the utmost importance to all pathies and all isms. If a State examining board knew candidates only by numbers, knowing nothing from whence they came or whither they go, a mixed board could examine and pass upon the candidates in common on all these subjects, after which they could be examined in therapeutics, each after his kind, regular, homœopathic or eclectic. There need be no jarring in this arrangement. This would give assurance to the world, and the profession, that all licentiates had attained more or less proficiency in the various branches of medical learning. After acquiring all this primary knowledge as a basis, every one has a personal right to use it for therapeutical ends, as his reason, judgment, and conscience may dictate. To secure the foregoing good, we can most cheerfully endorse a mixed board or any board of State medical examiners. No matter what flag the practitioner may sail under, if he has a heart in him, when the pinch of disease comes he will bring all his knowledge to bear to curative ends, without any regard to any pathy or ism.

But Prof. Loomis said it was not safe to separate the examining from the teaching bodies. England tried it, and it failed. When did England try it, and it failed? I am unable to find when. At present there are nineteen examining boards in Great Britain, more or less mixed in their make up, of appointments by the crown, the universities, and her learned medical societies, and little or no change has been made in these laws and regulations since 1858. At the present time England is more agitated on the subject of medical reform than we are. A bill is now before Parliament reducing her nineteen licensing bodies to three, one each for England, Scotland, and Ireland, all independent of the teaching bodies, but under the direction and control of a general Medical Council of eighteen members, appointed jointly by the crown, the universities, the Royal Colleges of Physicians and Surgeons, etc. There is no comfort for the college bill in the history, or present aspect of medical legislation in England. Her bane is the number of her licensing bodies with uncertain examinations, which she is trying to correct.

In France, the professor said, the examining body is taken from the teaching body; but the teacher there is paid a fixed salary, students or no students, graduates or no graduates, and is amenable to a sharp, criticising government and profession for the proper discharge of his duties. He serves a power above him. What power above them do American medical colleges serve? To whom are they responsible? To whom do they give an account of their doings? They are imperial in their authority. The committee's bill proposes to scan their doings and make them, in a certain sense, responsible to a higher power; and this is where the shoe pinches, and why the colleges rebel.

Prof. Loomis also said it had been tried in other States and had failed. He did not name the States, nor give the causes of failure. It has not failed in Illinois, Virginia, Alabama, Canada, and some other States where it has been tried. He thinks the non-teaching members of the profession would make poor examiners compared with college professors; that it is an art that teachers have learned; that they, the non-teaching members, are really incompetent to stand guard at the portals of the profession. What, five thousand medical graduates in the State and not one in five hundred fit for such duty! What stuff, then, do our colleges turn out? The strongest possible argument, if true, that something should be done to save the profession of the future from our colleges. But it is not true. If it is true, how about the medical examining boards for the army and navy? They are not composed of college professors, but they play the very mischief with the better class, the cream of college graduates; only about one in three being able to pass these examining boards. Should not the State see to it that she provides equal medical knowledge and skill for her common citizens that she deems necessary to provide for her soldiers and sailors? Are not our family ties as tender and dear to us as the ties of the army and navy to the State? Shall we be put off with an inferior medical profession? Give the non-teaching members of the profession a trial; it can do no harm—a valuable element in all prescriptions. The colleges will go on doing their work conscientiously as they have done, perhaps better, for, at least, there will be a small, wee power behind, or rather in front of them. We can see nothing but good to come from the establishment of an independent State board of medical examiners. Everything pertaining to medical education and medical colleges will remain as they are, unless other provisions are made as to time of study, etc., etc. It simply provides an additional screen to try to sift out the chaff that may have escaped a first winnowing. What honorable, high-minded college can object to this? We believe its influence will be to make the student a better student, the teacher a better teacher, and thus secure for the people a better profession.

To dull and idle students, who fail in class examinations, the good professor would be very apt to say, "Gentlemen, these answers will not serve you before the State board of medical examiners. You must do better than this, or it will be useless for you to try that examination. You will disgrace yourselves and disgrace us as teachers; try and do better." What a stimulant, to both student and teacher, to double their diligence! The teacher as well as the student would have something to fear, something to work for, a power to serve beyond the college walls. College work would be open to sunlight. The more thorough, and the higher the standard of education in a college, so that to obtain its degree would be almost a sure guarantee of passing the State board of medical examiners, the more popular the college—somewhat reversing the present order of college popularity.

Other points have been criticised in both bills. A bill cannot well be drawn to please everybody. For a name Medical Council has been suggested, with good reason, in place of Medical Faculty, and the compensation has been thought to be too low, etc., etc. These are all minor points that time and experience will serve to correct, over which real reformers will not be obstinate or particular, so long as the bill embodies the cardinal thought—one single door of entrance to the profession, by or through a common, uniform examination, independent of college influence and the "almighty dollar."

ALFRED MERCER, M.D.

SYRACUSE, N. Y.

MEDICAL LEGISLATION FROM ANOTHER POINT OF VIEW.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR: It must have ere this become sensibly pregnant in the minds of every reasoning medical man that doctors of medicine are meddling too much with doctors of medicine, and that inefficient health boards are doing likewise. There are already too many conflicting medical laws, too many medical organizations, and too much medical law-making. Should this state of things continue much longer, especially as it has in the State of New York during the past few years, the best part of the fabric will crumble to atoms. During the more ancient days of the American people there was but little interference with medical men, nor medical men with each other. But it is not so now. A physician in those days was known by his intelligence, education, reputation, and refinement, when now the majority are but known by their certificate or diploma. It would be much better did some of our learned medical dignitaries devote more time to the investigation of medical sciences than to be concocting conflicting medical laws which the courts will eventually be compelled to declare void, as in a quite recent case in the city of New York.

Respectfully, S. J. W. LEE, M.D.

BRIDGEPORT, CONN.

THE ADVICE GRATIS SYSTEM AND THE CHANCES OF THE YOUNG PRACTITIONER.

To the Editor of The Medical Record.

Sir: If you will give my letter a place in your journal, I would like to say a word in response to Dr. Roosevelt's letter published in The Medical Record of February 2, 1884, concerning "The Advice Gratis System."

Dr. Roosevelt says: "We need some practical method of sifting the undeserving from the deserving applicants for relief. Can any one suggest such a means?"

The Illinois State Eye and Ear Infirmary, in Chicago, required each patient to make oath that he was unable to pay for medical services or his medicine, or both, before he could be admitted to the dispensary. The Assistant Superintendent was a notary for this purpose, and the individual was given to understand that if he perjured himself he might be prosecuted. So, though his conscience might be benumbed, dread of the law would probably prevent his doing what he knew would expose him to its tender mercies.

The infirmary is an old, well-established institution, and this rule may be said to work well, inasmuch as it is very unusual to find among the patients any but the very poor. Of course there are exceptions, but until laws can be devised to protect society entirely from evil-doers, we cannot expect even our charitable institutions to escape occasional impositions.

Any one who could frame laws to save us from the wiles of the wicked would undoubtedly be a great benefactor to the human race, as well as to those physicians who regard free dispensaries as one cause of their misfortunes. Yet it is quite possible that that class of doctors might find struggling their portion still, for the fate of physicians, like the fate of all else in this world, seems to be written in that law which reads, "The survival of the fittest." We cannot establish a soup-house, that the same complaint might not arise from striving, hard-working butchers and bakers, and in our present state of civilization there seems always to be more or less pain to individuals in the very wisest courses open to us. "So inevitably diffusive is human suffering that even *justice* makes its victims," and we can only hope that both our justice and our charities may benefit the many though they sacrifice the few.

A Layman.

Washington City, D. C.

ATTENUATING VIRUS BY DILUTION.

To the Editor of The Medical Record.

Sir: In your editorial note on "Attenuation of Virus by Dilution," on page 269 of The Medical Record of March 8, 1884, you have given a wrong impression in regard to the justice of my claims for having originated a new method of attenuating virus. This, I believe, can be made very apparent to you, and I have no doubt you will take pleasure in making the proper corrections.

In the first line on page 270 you say: "This method of attenuating virus can, however, hardly be considered original.

"In the *Archives Générales de Médecine*, a year ago, Dr. Leblanc gave an account of the experiments of Professor Peuch, of Toulouse, with the virus of ovine variola (La Clavelée). This he inoculated in various dilutions. The protective influence, however, was not found to be great, and we very much doubt whether by a simple process of dilution a trustworthy protective virus can be obtained."

No doubt you were led to these remarks by the publication of an address of mine in a recent number of the "Proceedings of the Kings County Medical Society." If you will look at that paper again, however, you will see that the address in question was made in November, 1882, or considerably more than a year ago. Its publication was delayed by circumstances over which I had no control; but the manuscript has been in the hands of members of that society since the time the address was delivered.

Again, if you will have the kindness to refer to The Medical Record of April 7, 1883, you will find an article written by me, entitled "On the Production of Immunity from Contagious Fevers by Inoculation with Diluted Virus," in which Professor Peuch receives due credit for his experiments. My own experiments were made a full year in advance of those of Professor Peuch, and an account of them was read at the meeting of the Society for the Promotion of Agricultural Science at Montreal, in August, 1882. The only question of priority that can be raised is in regard to the experiments of M. Chauveau, which were referred to at sufficient length in my article in The Record.

In regard to the degree of protection, I think you are also mistaken. I have always found it very complete M. Peuch stated that the sheep which he inoculated with diluted virus acquired immunity. Since then Arloing, Cornevin, and Thomas have made experiments with the diluted virus of *charbon symptomatique*, and have confirmed both the principle and the fact that immunity is conferred by this method; but they were unable to secure uniform results because, as they admitted, they could not by their manner of preparing the virus obtain this of uniform strength. You will see, therefore, that the European scientists have not yet reached the cardinal principle of my method, viz., the use of a virus of standard strength which alone can produce safe and certain results.

Another point in which my experiments lead M. Chauveau and all others is the demonstration that a virus which ordinarily penetrates to every part of the body may be compelled by dilution to multiply locally at the point of insertion, and confer immunity without producing a constitutional disease. That a knowledge of this fact is essential to the practical application of the method to the greater part of the contagious diseases is apparent without discussion.

I am sorry to trouble you by writing at such length, but I have so frequently heard the remark by members of the medical profession, that our journals keep them well informed of everything being done in Europe and leave them in complete ignorance of what our own investigators are accomplishing that I have concluded to, at least, do my part toward changing this condition of things. Very truly yours,

D. E. Salmon.

Washington, March 10, 1884.

[We take pleasure in publishing Dr. Salmon's letter. While the idea of obtaining protective vaccine by dilution is, as we stated, not original with our correspondent, he is entitled to the great credit of devising a most ingenious method of obtaining standard dilutions.

We must adhere to the opinion that the practical value of dilute protective virus is very doubtful, and has not yet been demonstrated by Chauveau with anthrax or *charbon symptomatique*, by Peuch with ovine variola, or by Salmon with chicken cholera.

We seriously doubt, also, if it has been, or can be shown that a purely local process confers immunity from a constitutional disease. The inoculations of pleuro-pneumonic virus, long before Dr. Salmon's experiments, apparently showed this, but only apparently.—Ed.]

The Susceptibility to Hypnotism.—M. Brémond has made, on sailors, soldiers, and officers, from fourteen to twenty-six years of age, a large number of experiments, showing that lethargy, catalepsy, and somnambulism can be produced in healthy non-hysterical people, and that these phenomena are preceded by a peculiar state of fascination. The period of fascination is characterized by a sudden increase in the frequency of the pulse. One-third of the young men experimented upon manifested one or more of the above-mentioned symptoms.

THE MEDICAL TITLES BILL.

To the Editor of The Medical Record.

Sir: The Senate bill (S. 1559) to "change the titles of medical officers of the army" is a direct blow at the *military* status of the Medical Department. The title of "Surgeon-General" (in place of Medical Inspector-General), forced upon medical officers of the British army a few years ago, has given great dissatisfaction, and the animus of the "Horse Guards" was clearly shown in making the list of Medical Inspector-Generals *Surgeons-General—i.e., general Surgeons*—instead of Surgeon-Generals—*i.e.*, Generals of Surgeons. Now a similar trick is to be played with our officers, probably with the same object. The title of "Surgeon" carries with it the sole idea of a bone-setter, an operator—a sort of human butcher. It is a misnomer in this country, where every medical man graduates as a *physician*. It is productive of much confusion, conveys no idea of a military status in either branch of the service, and gives a false impression of the duties of a medical officer of the present day. The duties of the latter are largely sanitarian, and are (both in peace and war) far more *medical* than surgical in their nature. The terms medical department, medical corps, and medical officer are clearly understood. As the title of "Surgeon" has no definite meaning in the United States (as it has in Europe), it is seldom used here, and it may be confounded with veterinary-surgeon, surgeon-dentist, police-surgeon, etc. The titles of "Passed Assistant Surgeon" and "Assistant Surgeon" are also meaningless, and are calculated to inspire but little respect and confidence for the younger members of the profession in a military community. The title "Medical Officer" is clearly indicative of professional duty; but a military title should be used *officially* to denote the military status of an officer in every branch of the service. If it be necessary to divide the medical corps into classes, I would suggest the following titles: A Medical Director-General of the Army, with the rank of Brigadier-General; a Medical Director-General of the Navy, with the rank of Commodore; Medical Inspector-Generals for medical officers with the rank of Colonel, and Captain in the navy; Medical Directors for medical officers with the rank of Lieutenant-Colonel, and Commander in the navy; Medcal Inspectors for medical officers with the rank of Majors, and Lieutenant-Commanders; Medical Officers for all medical officers of the army and navy below Major and Lieutenant-Commander. These titles are indicative of professional duty, are in use in other services, and would do away with the term "Surgeon," which is unsatisfactory both in military and civil life.

I sincerely hope that the medical officers of our army will oppose the Senate bill, or have it so changed that the titles will convey a better idea of their medico-military duties.

C.

Neuralgia Pencils.—So-called neuralgia pencils, "Migräne Stifte," are now being offered by a number of German pharmacists, especially in Berlin. They are said to consist essentially of a mixture of menthol, thymol, and eucalyptol, fused and cast in small conic pellets, which are fitted in a suitable handle. The forehead and temples are touched with the pencil. A slight impression of burning is at first produced, which soon gives way to a pleasant, cool sensation. Several pharmacists claim priority in this invention. Friedlander exhibited neuralgia pencils at the late Vienna Exhibition, and a year ago nerve-crystals were offered by Blaser, which were described in the *Pharmaceutische Zeitung* as consisting of a mixture of crystallized Japanese peppermint oil and camphor. These pencils, under the name of the "menthol cone," were exhibited by Dr. E. C. Wendt at a meeting of the New York Neurological Society recently.

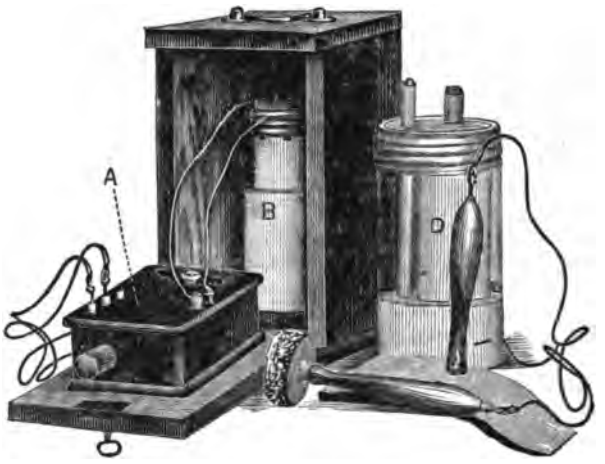
New Instruments.

NEW PORTABLE FARADIC BATTERY.

By C. L. DANA, M.D.,

New York.

The faradic battery, of which the accompanying is a cut, consists of a cell B (and D), and a small box A, containing a faradic coil. The cell D is an extra one and not used in running the coil. The large box with the open lid holds one cell and the coil, with their connecting wires and electrodes.



The cell is different from that ordinarily used to run induction coils. It is known as the "Bergmann & Haid Cell," and resembles the Leclanché, but is considerably stronger, does not run down so easily, and can be used for a longer time. One of these cells will run a coil for three hours continuously, and will then recover nearly its full strength. A single Leclanché cell will not ordinarily run an induction coil. This "Bergmann & Haid Cell" consists of a glass jar, in which is placed a porous cup containing manganese with other materials, and the carbon pole. In the part outside of the cup is a saturated solution of chloride of ammonium and the zinc pole. The cell is of the "open-circuit" variety, and generates no electrical current until the connections are made. In order to start the battery it is only necessary, having filled the outer part with water, to make the connections with the coil.

The coil itself is of the ordinary kind, with arrangements for a fine smooth interruption, and for giving a primary, secondary, and mixed current. More extra currents are not needed, neither is it necessary to have slow interruptions.

The advantages of this battery are:

First.—Its cheapness; a box with coil-wire connections and electrodes can be had for $5. The cell costs $1.20. The large box holding coil and cell is not absolutely necessary, but one can be made for seventy-five cents or a dollar. I advise the purchase of two additional cells, which will make the total cost about ten dollars. I do not know of any really good faradic battery that does not cost half as much again.

Second.—Its portability and convenience. If one wishes to use a battery for some time on a patient at his home, the physician can take one of the cells and leave it at the house. He has then only to carry about the coil, which he can easily do in his pocket. If one has a second out-sick patient, he can leave another cell with this case also, and he has only to attach his portable coil to the different cells.

Third.—It does not get out of order. This at least has been my experience. The zincs cannot be suddenly destroyed by being accidentally left in the acid. The cell requires no care except to occasionally add water. Of

course, in time it wears out, but one cell will last one or two years or longer, according to the amount of use. And it does not cost much to get new ones.

The portable coils are made by Mr. H. E. Stammers, 1443 Broadway, New York, who also supplies the cells. These, however, can be obtained also of electricians elsewhere.

Army and Navy News.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, United States Army, from March 9, 1884, to March 15, 1884.

BILLINGS, JOHN S., Major and Surgeon. Granted leave of absence for one month, with permission to go beyond sea, to take effect April 1, 1884. S. O. 61, par. 6, A. G. O., March 13, 1884.

HEIZMANN, CHARLES L., Captain and Assistant Surgeon. Leave of absence extended three months. S. O. 57, par. 9, A. G. O., March 8, 1884.

KNEEDLER, WILLIAM H., First Lieutenant and Assistant Surgeon. Assigned to temporary duty at Fort A. Lincoln, D. T. S. O. 26, par. 3, Headquarters Department of Dakota, March 8, 1884.

WALES, PHILIP G. Appointed to be Assistant Surgeon with the rank of First Lieutenant, to date from February 7, 1884, vice Brewster, resigned. A. G. O., March 10, 1884.

Official List of Changes in the Medical Corps of the Navy, during the week ending March 15, 1884.

TERRILL, F. H., Passed Assistant Surgeon. To Coast Survey Steamer Hassler.

MCCARTHY, R. H., Passed Assistant Surgeon. From the Coast Survey Steamer Hassler, and wait orders.

Medical Items.

CONTAGIOUS DISEASES—WEEKLY STATEMENT.—Report of cases and deaths from contagious diseases reported to the Sanitary Bureau, Health Department, for the week ending March 18, 1884:

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Cases.								
March 11, 1884.....	3	11	69	5	44	44	0	0
March 18, 1884.....	0	10	78	3	41	35	0	0
Deaths.								
March 11, 1884.....	0	6	8	7	5	21	0	0
March 18, 1884.....	0	7	19	3	4	21	0	0

ANTISEPTICS AND THE PREVENTION OF PUERPERAL FEVER.—As far as we can judge from letters received from all parts of the country, the current of professional opinion sets strongly against the views recently advocated by Dr. Thomas at the Academy. The following letter may be considered a sample of these. Dr. F. A. Tuttle, of Jefferson, Ohio, writes: "Many of us in the rural districts were much surprised by the paper of Dr. Thomas. I have practised medicine for twenty-five years, and in looking over my cases for cause of death, I find but one that I attribute to septicæmia. How much is such a statement worth? All the strong convictions of your life are founded on antecedent and sequence—the oft-recurring and coherent have produced the profound convictions on which you trust and act, and you have a right to trust them. I am aware that exact data are more reliable, but the great map of our experience is acquired and organized without exact statistics—pigeon-holed by the brain for future reference. We teach our patients to look forward to their parturition cheerfully and hopefully; that nature will not be recreant in this physiological process; that we have a right to trust her here as elsewhere. The cow retires from the herd and brings forth in safety; the savage woman follows the same instinct with the same results; and we still hope in the country that our civilization has not converted a physiological into a pathological process. I have learned to fear uræmic poison before birth ten times more than septic poison after birth. At the rate your great centres of population are advancing, how long will it be before the conditions necessary for fertilizing the ovum (rupture of the hymen) will be equal to a capital operation? How long, with nursing bottles and fixtures, before the mammary gland will be a rudimentary organ? I see your death-rate far exceeds your birth-rate, and were it not for the bone and muscle poured in from the country, 'the vine would clamber in your halls and the fox look out of your windows.' In the country we plant and mature our crops rejoicing in the coming harvest. We are glad to come to you as teachers, for you have unlimited clinical material, but we will continue to raise up our posterity in the old way. No book on my table looks more worn than Dr. Thomas's. His directions to an expert may be all well, but in the hands of the average M.D. and the midwife I should prefer Dr. Barker's discreet criticism as a working formula. The *standpoint* from which this question is viewed, the hospital and city or the country, must make our deductions vary greatly.

THE ACTION OF DISINFECTANTS ON TUBERCULAR MATERIAL.—Dr. Vallin (*Tribune Méd., et Jour. de Pharm.*, 1883, p. 221) has endeavored to determine in what degree the inoculability of tubercle is modified by the previous exposure of the tubercular material to reputed disinfectants. Fragments of tubercle from a patient who had died of phthisis were found to yield an infusion powerfully infective. The infusion, dried upon blotting paper, was also infective. Similar strips of prepared paper, after being subjected to sulphur fumigation, were found to be inert when the sulphur used was in the proportion of 30 or 40 grammes to 50 cubic metres of air; but with 20 grammes of sulphur the results were not constant; and with 15 grammes of sulphur the strips still yielded specific inoculable material. Experiments were also made with other disinfectants. One part of corrosive sublimate in one thousand parts of water was effective, as were also nitrous vapors. Water appeared also to have the property of destroying germs; for, if the strip of paper on which the tubercular infusion had dried was disinfected with water, the inoculated animal retained its health.

A SCRAP OF HISTORY OF PERKINS'S TRACTORS.—The publication of a new edition of Dr. Holmes's "Classical Essays on Homœopathy and Kindred Delusions" revives a temporary interest in Perkinism. The following hitherto unpublished extract may give a faint idea of the state of mind that prevailed in this country at the time this delusion prevailed. It is kindly contributed by Dr. W. Thornton Parker, and is an extract from a letter from Dr. Benjamin Parker to his son, Dr. W. Thornton Parker, Sr., dated November 11, 1842: "I am much pleased with Holmes for the most part; but I have not had time to read him through. All about Perkinism is perfectly correct and true. I lived in those times, and was in the midst of the excitement. A gentleman in Virginia sold a plantation and took the pay for it in tractors, which tractors died on his hands. Nothing was more common than to buy horses and carriages with Perkins's tractors. But the worst effects of the delusion Holmes has silently passed over. The yellow fever pre-

vailed in New York to a great degree, and proved fatal to thousands. Perkins thought he could cure the fever with his tractors, and went into the city while it was raging, and, as might be expected, he immediately fell a victim of his own folly."—*Philadelphia Medical Times.*

THE PREPUCE OF THE NEW-BORN.—Dr. C. M. B. Kidder, of Vergennes, Vt., writes: "In the early part of my practice I was not a little amused by a young unsophisticated mother calling upon me with her infant, in a somewhat excited, or rather anxious state of mind, and confidentially informing me that her baby—a bright healthy boy—she feared, was not altogether right, and after a few preliminary expletives she proceeded to remark, with a somewhat subdued and modest mien, that she could not retract his prepuce, though he seemed all right in every other respect. I ventured to suggest to her the possibility that she might not be very familiar with the thing, in its immature state at least, and I supposed that that was the normal condition in all boy babies at birth; and I assured her that in my judgment, without any operative procedure, he himself, if left alone, would in time contrive some method by which the thing could be accomplished. Since that time I have on several occasions seen articles referring to the subject, as though it was a pathological, instead of a physiological condition. In your issue of THE MEDICAL RECORD of February 23d, under the head of 'Certain Matters of Treatment which should Belong to the Lying-in Room,' by H. F. Walker, M.D., I read a well-written article, making it incumbent upon accoucheurs 'to examine at birth every male infant, and if the prepuce be so contracted or adherent that, with probe and pressure, the glans penis cannot be uncovered, operate by splitting the prepuce as far back as the corona with scissors or bistoury.' I confess that the idea struck me as not simply ridiculous, but barbarous in the extreme, and never called for unless it interfered with urination, or some other normal function. Is that the custom, or considered important by modern obstetricians?"

RECTIFIED SPIRITS INSTEAD OF BRANDY OR WHISKEY.—Dr. A. M. Miller, in view of the frequent adulteration in distilled liquors, suggests the more frequent use by medical men (for medical purposes) of rectified spirits. This is free from amylic and other higher alcohols.

FLORIDA AS A WINTER CLIMATE FOR INVALIDS.—Dr. O. H. Smith, of Palatka, Fla., who was for many years a resident of Brooklyn, writes to us from his present quarters in Palatka, regarding the value of the Florida climate. Dr. Smith had for years suffered from a most aggravated form of nasal catarrh, with great hypertrophy and swelling of the nasal mucous membrane. He says: "I left New York, December 11th, and reached Florida in two days, where the weather was mild, and within one week my stuffed head was open, and my voice began to have the natural ring, instead of the nasal ring, and now I am perfectly free through my nostrils. I have had during the last year more or less of general neuralgia, with a severe attack of sciatica, which half crippled me for several months during the winter and spring, and I am now much better of these. I have taken ergotine and iodide of potash in heroic doses—all my stomach would bear, and a little more—and have used galvanism, and all with some benefit; but a non-fermentive diet, an entire abstinence from fruits and all starchy foods, has been of more value to me than medicines. My diet for three months has been meats, fish, eggs, milk, a little stale bread, and an occasional baked potatoe, and although I have lost fifteen pounds in weight, I am feeling stronger and better than usual. I know the warm climate has relieved my head, and has aided in my general improvement. The climate is like our September in New York, with cooler nights, and perhaps warmer from ten to two in the day. The last three days have been like our early November, requiring fires and overcoats, and two mornings there has been a little ice, and the mercury down to 28°. Still the oranges have not been damaged here, and the people are picking and packing them all the time. This climate is not equable, like Honolulu, but changeable like Southern California, and also Nice, Cannes, Mentone, and San Remo, on the Mediterranean, and the change is beneficial in one sense, for it gives good rest and good sleep, and makes one feel fresh and ready to stir in the morning.

"I am well satisfied this climate is curative itself for all chronic diseases of mucous membranes, whether of chest, or throat, or nose; and this opinion is based upon facts obtained here from persons who have come from the North and West with this class of troubles, and have become strong and well without any medication, and still remain here in business. This climate must be adapted to the relief at least of granular kidney, as the almost constant action of the skin will relieve the kidneys much by eliminating urea from the blood, and thus aid the physician greatly in treating Bright's disease. This climate, in short, has all the advantages of other semi-tropical climates which I have visited, and, in my opinion, is superior to many of them in many respects. The tables of the first-class hotels here are second to none in the country—fresh shad every day, caught during the night in the St. John's, and other fish of the finest quality and flavor, oysters from Cedar Keys, and very fine poultry and eggs, abundant oranges and sweet potatoes the year round, green turtle and venison always at hand, bread and pastry of best quality, milk not abundant, but good. The New York markets supply the hotels with beef, mutton, butter, and all other good things that can't be found here, and no mortal man or woman can want any better table than those of the best Florida hotels. Palatka is a pretty little town, and growing rapidly, with seven hotels—two of them large and first class, while the others are good—and thousand of visitors come here each winter to spend a few weeks or a few months. There are also several good boarding-houses here where hundreds of invalids come for the benefit of the climate and to be restored to health. There are several excellent resident physicians here, and my own ill health at home obliges me to add one more to their number as a 'winter resident;' and I need not say we will all do the best we can, socially and professionally, for all who come down here, either for pleasure or for health. This letter is intended to reach the entire profession, North and West, and wherever your popular journal circulates, in order that all medical men may understand what the Florida climate has done and is doing for the sick. And I want to say right here to all my professional brethren, of all medical schools, that they can send their patients who require a mild winter climate to any of the live and growing towns of Florida, and they will always find good hotels to feed them, and good physicians to take care of them if they should need medical aid."

NEW REMEDIES FOR BURNS.—Dr. J. H. Finfrock, of Laramie City, Wyoming, writes: "Dr. Prettyman's 'New Remedy for Burns,' published in THE RECORD of January 12, 1884, prompts me to send you the following, which was first made known to the profession by Dr. Binkerd, of Delaware. During the past twenty years I have had to treat an unusual number of cases of burns, and have tried many remedies; but this has given the best satisfaction of any. I first apply soda bicarb., in powder or solution, to relieve the pain, and then dress the part with the ointment, changing the dressings only when the discharge renders it absolutely necessary.

℞. Cera flava, pure..... ℥ j.
Ol. lini rec..... ℥ iij.
Acid, tannic..... ʒ j.
Bismuth, subnit..... grs. xx."

Melt wax in clean tin or porcelain vessel, add oil, and heat to near boiling; remove from fire and add the tannin, finely powdered, then the bismuth. Thoroughly incorporate by stirring until cold.

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Original Articles.

REMARKS ON RUPTURE OF THE BLADDER;

WITH A SUCCESSFUL CASE OF THIS INJURY TREATED BY PERINEAL URETHROTOMY AND PELVIC DRAINAGE.[1]

BY ROBERT F. WEIR, M.D.,

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THE cases of recovery from a ruptured bladder can, in common phrase, be almost numbered on the fingers and toes. In exactness they are given as 26 cases by Rivington,[2] in his elaborate paper on this subject, out of a total of 226 instances collected by this surgeon. On analyzing these fortunate examples, however, it is found that one case, Keal's, is briefly and unsatisfactorily stated as a partial or subperitoneal rupture; in five[3] others the rupture, occurring during parturition, had safely torn into the vagina three times and into the rectum twice, and in four[4] other cases the discharge of bone from the bladder, or its detection in that organ some time subsequently, was the only evidence of the previous rupture or rather ulceration of the bladder. Finally, in another case of Rivington's, the late discharge of urine from an abscess in the groin, which in its turn had followed an injury, was the scanty proof offered of a lacerated bladder. Placing these cases aside as of but little aid in determining the proper surgical procedure in rupture of the bladder, we have only fifteen recoveries from this severe injury to consider. Seven[5] of these recoveries occurred in ruptures that were extra-peritoneal, or in parts of the bladder not covered by peritoneum, *i.e.*, near its outlet and generally in front, where it was found in 18 out of 30 cases, and the remaining eight cases were said to have involved the peritoneum, which would indicate that the upper or posterior part of the bladder (in 73 cases 39 had the laceration behind) had been torn. In truth, however, these latter and more serious cases detailed by Walters,[6] Le Gros Clark,[7] Erskine Mason,[8] Thorp,[9] McDougall (2 cases),[10] Morris,[11] and Chaldecott,[12] have been submitted to a close scrutiny by Bartels,[13] Rivington, and others, and only one (Walters') passes unquestionably as a successful case of an intra-peritoneal rupture, the others being relegated to the extra-peritoneal variety of the injury. In other words, the mortality of the intra-peritoneal rupture is most discouraging. In 121 cases only one survived, *i.e.*, 82 per cent. The mortality of the extra-peritoneal form is much less; in 74 cases, 14 recovered, or 81 per cent.[14] This is a high figure, perhaps too high, for Maltrait,[15] following Bartels, gives the mortality of extra-peritoneal ruptures as 65 per cent., or 29 cures out of 76 cases.

The point developed by this examination of the cases, that the intra-peritoneal cases are almost invariably fatal, is to be kept in mind when discussing the diagnosis and treatment. Much of this mortality is due, doubtless, to the other injuries sustained at the time, such as fractures of the pelvis, which occurred 109 times in Bartels' 169 cases (or rather 163 cases, as 6 of them have been found to be duplicates). Other serious injuries were also present in many cases. But in the 15 successful extra-peritoneal cases there were 9 cases of fracture of the pelvis, in 5 of which this complication was early appreciated. Hence a recognized fracture of the pelvis associated with a rupture of the bladder should not contra-indicate surgical interference.

Seeing, then, the great difference in the mortality between the two varieties of the injury under question, is it possible to make not only a diagnosis of rupture of the bladder, but also to diagnosticate the locality of the injury; that is to say, whether the extravasation is above or below the peritoneal line?

The symptoms given in our usual works on surgery are somewhat vague and obscure; the collapse, the abdominal pain and muscular tension, with more or less meteorism, conjoined with bloody urine, which may be passed by the patient himself (for it is an injury more likely to occur to males, since in 181 cases only 22 were in females), or may require for its voidance the use of the catheter, point strongly in themselves to this injury. But only one symptom of real value beyond the existence of bloody urine can be elicited by the use of the catheter. When this instrument, after entering the bladder (to be determined positively by the finger in the rectum) and evacuating its contents (sometimes none are present), then passes in farther, giving exit, in an ebb and flow movement corresponding to the respiration, to an additional quantity of urine, and this possibly of a different depth of color from that first drawn, the pathognomonic symptom of a ruptured bladder is reached, and if the passage of the catheter-point is through the back and upper part of the bladder it is certainly an intra-peritoneal rupture. Once the confirmation of injecting very warm water was resorted to, the patient feeling the current in his bowels. Unfortunately in but very few cases has it been possible to achieve accuracy by means of the catheter. The rupture may be too small, or the timidity of the surgeon may be too great, or the opening may be plugged up by overlapping of the mucous membrane, or by an intruding mass of intestine, as happened in one instance.

Failing this important symptom there is another of considerable value, and noted in many of the cases: it is the existence of dulness on percussion in the hypogastrium or in one or both iliac fossæ. I have in one instance seen it show itself in the left lumbar region. This dulness is due generally to extravasated urine and more or less rapidly increases, and does not change its position on turning the patient on his side, if this be possible. The rectum should also be carefully explored for the more rare lateral and posterior extravasations. I believe this extravasation to be not only an important indication of a rupture of the bladder, but also to point strongly to the extra-peritoneal site of the laceration. This will be clearly appreciated by a glance at this diagram taken from Tillaux. It shows plainly how much of the bladder

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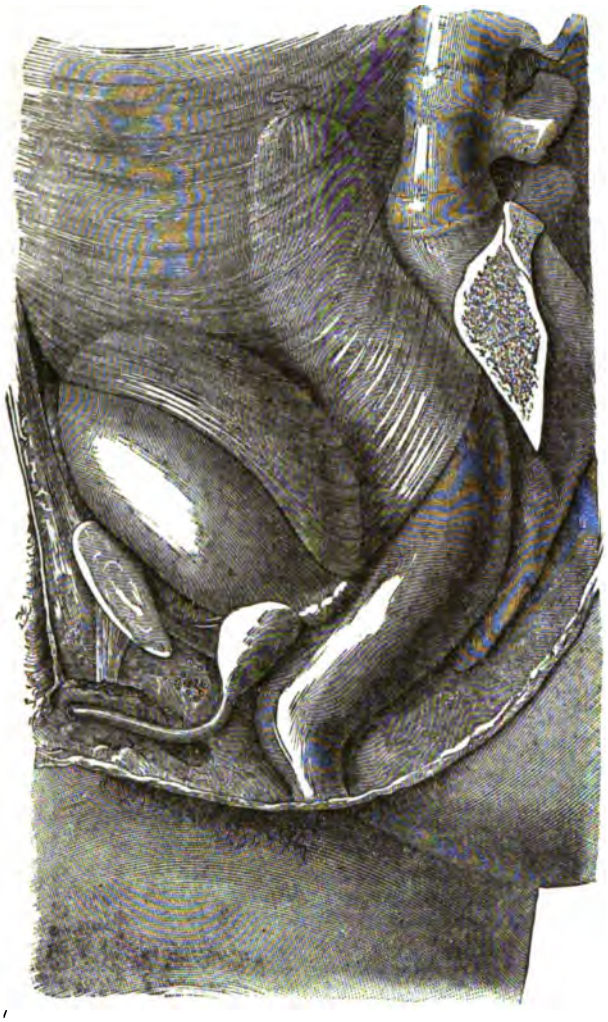
[1] Read before the Practitioners' Society, February 1, 1884.
[2] Lancet, June 3, 1882.
[3] Wilkinson, Earle, Blundell, Ward, and Call.
[4] Astrer, Eve, Townsend, and Thompson.
[5] Syme, Porter, Padley, Bartels, Rose, Berner, and Jeaumaire. Walker's case is thrown out by Rivington.
[6] Ranking's Abstract, vol. ii., 1862.
[7] Lectures on Surgical Diagnosis.
[8] N. Y. Journ. of Med., 1872.
[9] Dub. Quarterly Journal, vol. xlvi., p. 306.
[10] Ed. Med. Journal, January, 1877.
[11] Med. Times and Gaz., November 29, 1879.
[12] Provincial Med. and Surgical Journal, 1846.
[13] Bartels Archiv. f. Chirurg., vol. xxii., p. 715. Die Zerreissungen der Hornblase, 1878.
[14] This is according to the figures of Rivington, viz.: Simple intra-peritoneal ruptures, 105; complicated intra-peritoneal ruptures, 24; extra-peritoneal ruptures, simple and complicated, 60; intra-uterine ruptures in the fœtus, about 5; rupture of uncertan position, 6; reported cases of recovery, 26.
[15] Contribution a l'étude des traumatismes dé la vessie. 1881.

is subperitoneal, and one would at first expect that ruptures would as frequently occur here as above this line did not the fact of a full or distended bladder compressed against the sacro-lumbar prominence play so important a part in bringing about this injury, for in a large majority of the cases of rupture the patients have been under alcoholic influence or their bladders were in



a state of repletion from other causes. When fracture exists the rupture is more likely to be extra-peritoneal, and to take place even when the bladder is not full. Where such dulness is met with, especially if in the hypogastric region, aspiration should be resorted to as a confirmation of the diagnosis of extravasation.

Suppose the symptoms are such as to fail to give light enough on the case, what is to be done?

Delay is too dangerous; this is particularly so in the intra-peritoneal variety of the laceration. Rivington states that of 108 intra-peritoneal ruptures only 25 lived over 5 days, 7 over 10, and none over 16 days; of 49 cases of the fatal extra-peritoneal form 23 lived over 5 days, 7 over 16 days, 4 over 3 weeks, 2 over 6 weeks. But it is more to the point to consider here a moment the interesting experiments made by Vincent[1] on dogs. This observer, after some twenty-five trials, showed that laparotomy with cutting out a piece of the bladder and temporarily closing the wound a number of hours, to allow of the extravasation of urine among the intestines, was followed with success, as a rule, when the abdominal wound was reopened at the end of eight to ten hours, the vesical wound stitched together with a double row of sutures, the peritoneum carefully cleansed, and the ventral incision finally closed. If no attempt was made to repair the damage done in the primary experiment the animal died at the end of forty-eight or fifty hours. If the closure of the vesical wound was delayed much longer than eight or ten hours the chances of success were correspondingly imperilled. In the few cases where failure of vesical union occurred, the urine escaped through the abdominal wound, the omentum enveloping the bladder and conducting the extravasation forward. The latter point I assume is more due to the dependent position of the belly in animals.

In the successful case of Walters, where, in man, laparotomy was performed, the operation was done ten hours after the accident. The wound was in the fundus, two inches in length, the urine sponged out from the peritoneal cavity and the abdominal wound closed. A catheter was left in the bladder to act as a drain for a number of days and then used intermittently for three weeks. In the two cases where laparotomy was resorted to without success, in one, Willett's case,[1] the operation was performed twenty-eight hours after the injury, but the patient died twenty-two hours thereafter; in the second, Heath's,[2] the operation took place forty hours after the accident, the same procedures were employed and in both a drainage-tube was inserted through the abdominal wound. Death occurred in Heath's case seventy-six hours after the operation.

It must be evident from the preceding data that surgical interference to accomplish anything must be especially prompt in the intra-peritoneal ruptures, hence every aid to an early diagnosis must be resorted to in a suspected case of this injury. Failing the above important symptoms, there is a measure of comparative safety to be used and which is applicable to each form of rupture for diagnosis and for treatment. I refer to the digital exploration of the bladder by the perineal incision, such as is made for median lithotomy. In a case of doubt in 1871, I employed this method to decide whether in a fracture of the pelvis with severe symptoms I had to do with a lacerated urethra or ruptured bladder, and was enabled to recognize, though not to successfully treat, a rupture on each side of the bladder from penetration of bony fragments. Latterly this means of exploration has been popularized by Sir Henry Thompson, and I can speak from experience as to the ease with which the bladder may be explored. It is true that my own and others' experience is chiefly made up of such cases as would permit the bimanual method to be made use of. Whether in a rigid or tumefied abdomen the upper part of the bladder could always be reached, I am not certain, but the finger plunged to its full depth would either recognize or exclude the extra-peritoneal ruptures, and the short tract of urethra would more readily allow of the thorough exploration by a catheter introduced through the perineal wound of the parts of the bladder beyond the finger's reach.

The efficacy of this plan of action was seen in the following case that has recently been under my charge in the New York Hospital:

Case.—An Italian laborer, aged twenty-eight years, was admitted to the New York Hospital, November 20, 1883, having been injured a short time previously by a bank of earth falling on him while engaged in making an excavation for a gas-pipe in the street near by. The accident occurred about ten o'clock in the morning, and on inquiry it was ascertained that he had had no alcoholic drink that day, and had urinated not long before the receipt of his injury. The mass of earth that fell upon him struck most heavily on his pelvis and left hip. When he was admitted no shock existed and his general condition was excellent. There was noticed a slight ecchymosis of the scrotum and a spot of blood at the meatus urinarius. This fact led the house surgeon to pass a rubber catheter, which gave exit to a moderate amount of bloody urine which became clearer as it flowed. Palpation over the supra-pubic region gave rise to a little pain; considerable tenderness was felt over the left hip, but no evidences of pelvic fracture were obtained.

[1] Maltrait, p. 16, and Lyon Med., September 25, 1881.

[1] St. Bartholomew's Hospital Reports, 1876.
[2] Medico-Chirurgical Transactions, 1879.

The patient passing urine with some difficulty and at times bloody, the catheter was passed during the next twenty-four hours three times. General condition good, though increased tenderness was then experienced in the hypogastrium.

November 22d.—The injury had been considered until to-day as a slight urethral laceration, but the marked increase in the supra-pubic dulness, which now extended four inches above the pubis and across into each groin, with tenderness, led to a closer examination of the patient. The catheter passed readily into the bladder and only occasionally gave exit to blood-stained urine. The urine itself was passed at times voluntarily, and was not apparently diminished in amount. The temperature was but 99°. Abdomen not distended, though its walls above the dulness somewhat rigid. Condition still good. No signs of fracture elicited, but the finger in the rectum detected a softer spot on the left side of the prostate which was decidedly painful. The ecchymosis of the scrotum and perineum was now very pronounced.

November 24th.—The temperature had risen to above 100°, pulse 104, and patient began to be restless and disposed to vomit. Tympanites increasing, with abdominal tenderness not only above line of dulness but below it. A large hypodermic needle inserted in the hypogastrium drew out some bloody fluid with an acid reaction and urinous odor. Nothing distinctive could be felt in the rectum. The patient was etherized and an incision, under sublimate irrigation, 1 to 1,000, was made three and one-half inches long in median line, midway between symphysis and umbilicus, until the subperitoneal cellular plane was reached, where a large cavity, containing at least a pint of bloody, undecomposed urine, was found. The finger could be carried its full length behind the symphysis, but nothing was detected. To effect a more complete diagnosis, as well as to allow of the carrying, if possible, of a drainage-tube from the hypogastric opening down and out of the perineum, the patient was placed in the lithotomy position and on a staff introduced into the bladder a median incision was made, opening the urethra just anterior to the prostate. The finger passed in here toward the bladder revealed a rent running along the left side of the roof of the prostate which was lost in the wall of the bladder itself. Its upper limit was not defined, purposely, to avoid extra damage to the parts so favorable as they already were. Through the supra-pubic incision a large silver catheter was carried, and, aided by the finger in the perineal wound, was caused to pass through the laceration of the bladder and emerge from the lower wound. To the eye of this catheter a thread was attached and a large rubber drainage-tube pulled through as the silver instrument was withdrawn. Each end of the tube was secured by a suture to the skin, and a second drainage-tube was then passed into the bladder and its external end also fastened in the perineum. The cavity of the ex travasation and the bladder were carefully washed out with a warm sublimate solution of 1 to 2,000, and iodoform gauze placed over each wound, though so lightly that urine could readily flow through the dressing.

The progress of the case was in every way most satisfactory, as is shown in the following notes from the case-book of the hospital. Dressing reapplied at 7 P.M.; temperature, 100°; all urine escapes through tube.

November 25th.—Condition improved, little pain; temperature, 101° all day; dressings changed and tubes irrigated.

November 28th.—Patient doing well; temperature still elevated (100°). Tube in bladder removed on 27th, urine passed by the other tube, which has been shortened daily from the perineal end.

December 2d.—Temperature normal. Urine is still forced through tube into abdominal incision; tube removed from this opening and placed in perineum.

December 5th.—Patient himself removed tube from perineum last night and much pain followed; replaced this morning, it drains thoroughly. Cavity washed out daily with sublimate solution.

December 9th.—Patient removed tube last night and it could not be replaced; urine voided by the penis with little pain.

December 24th.—Wound in perineum closed, wound in abdomen only a linear ulcer. Allowed to go out of the hospital to-day.

Theoretically the incision for lateral lithotomy would more perfectly attain the end of draining the bladder, but it is certainly of greater risk than the median cut, too much so to be used for diagnostic purposes. Should a rupture of the bladder be recognized, the drainage of the bladder can be accomplished by leading in a rubber tube or catheter, which is generally well borne for several days, as Thompson's cases show; or the neck of the bladder may be stretched by a glove-stretcher, as was done by Howe; or the neck of the bladder may be sufficiently nicked to impair its tightness of action; or, again, in these cases like Mason's, where the extravasation was postero-lateral, the incision may be boldly converted into the ordinary lateral cut.

It will be seen on analysing 18 successful cases given in Bartels' and Maltrait's collection (for unfortunately I am not able to verify all of Rivington's successful cases), that the extravasated urine was either cut into or opened itself in three instances. In 1 case aspiration was performed, in 5 cases the catheter was tied in, in 2 cases lateral cystotomy was done, in 1 perineal section, in 4 others an encrusted piece of bone was removed by a subsequent lithotomy (these are, however, no use to us in the present consideration), in 1 laparotomy and vesical suture was performed, and in 1 case the treatment is not stated. In other words, in the 12 cases of extra-peritoneal ruptures to be used for deductions, drainage of the bladder by a catheter and by incision was employed 8 times and evacuation of the extravasated urine 4 times. As these are so evidently the aim and end of surgical treatment, the results are to my mind only additional arguments to the procedure set forth in the case presented with these remarks.

In a case of intra-peritoneal rupture, where other lesions do not contra-indicate interference, the examples of Walters, Willetts, and Heath are to be followed. The knowledge obtained from the experience of the two latter surgeons is, however, to be kept in mind. In both of their cases the sutures did not hold; in one it was of catgut and used as a continued suture, in the other interrupted silk sutures were applied. Morris calls attention to the difficulty of passing sutures at the lower end of a posterior rupture. Hence the injunction given by Stern to not only employ the double row of sutures of Vincent and Czerny, but also to test the accuracy of the apposition by injecting milk into the bladder before closing the abdominal wound. Stein[1] has recommended that the lips of the rent in the bladder should be sewn in the abdominal wound. This is only applicable, however, to wounds of the top and front of the bladder. The peritoneal cavity should be carefully cleansed after the vesical wound is sutured, not only by the "toilet" of sponges but preferably by douching or pouring in two or three times among the intestines water that has been recently boiled, but sufficiently cool to be safe. This will supply a very fair aseptic fluid and avoid the necessity of using the solutions of sublimate, thymol, or carbolic acid that have been suggested, but which apparently at times exert a deleterious influence in the abdominal cavity.

THE HOSPITALS AND MEDICAL ASYLUMS in France number 1,580. Of those in the country, over half the beds are empty, the peasants rarely seeking relief in hospitals.

[1] Rupture of the Bladder. Annals Anatomy and Surgery, July and August, 1882.

PRACTICAL HINTS REGARDING THE METHODS OF EXAMINATION EMPLOYED AS AIDS IN THE DIAGNOSIS OF NERVOUS DISEASES.[1]

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(Continued from page 315.)

The eyelids. These may afford valuable aid in diagnosis. The upper lid sometimes drops over the eyeball and cannot be raised, constituting the condition termed "ptosis." This indicates a paralysis of the third cranial nerve. Again, when the facial nerve is paralyzed, the eyelids of the affected side cannot be closed. Puffiness of the lower eyelid, especially in the morning after rising, suggests the possibility of kidney disease. Alcoholic patients often exhibit a quiver of the muscular fibres of the eyelids. Spasm of the lids produces the peculiar winking so often seen in St. Vitus' dance and other nervous affections. In imbeciles and cretins the lids are often obliquely placed.

FIG. 5.—Countenance of Melancholia.

The expression of the eye may often be characteristic of certain nervous diseases. Melancholiacs exhibit the downcast eye. Maniacs may look excited, suspicious, or distrustful. A vacant stare is often present in dementia. Some forms of brain disease exhibit in the eye an air of exaltation. Masturbators seldom direct their gaze at the questioner, but look furtively about as if to avoid scrutiny.

The mouth. The lips are sometimes paralyzed. The pronunciation of the labials is then rendered indistinct or impossible, and a facial deformity is also created. The various diseases in which the mouth is chiefly affected will be considered separately.

FIG. 6.—Countenance of Dementia.

FIG. 7.—Countenance of General Paresis.

A. In *Bell's paralysis* the lips are rendered incapable of movement on one side only, and the mouth is drawn toward the opposite side by muscles which are no longer antagonized, on account of the facial paralysis. The act of whistling is rendered impossible, because "puckering" of the lips requires a contraction of symmetrical muscles of the face. The saliva is no longer retained, and the patient "drools." All expressions, except that of repose, are those of a face alive on one side and dead and motionless on the other; hence, they would be particularly grotesque and striking (were it not so frightful and distressing) even to a casual observer.

In those rare case where the facial nerve of both sides is impaired, symptoms similar to those mentioned above exist, except that the tongue has its normal capabilities of movement, save in the perfect articulation of the labial consonants only, and that a complete absence of facial expression is present.

The following rules will prove of value in making a diagnosis of the seat of the exciting cause of the condition. They are based entirely upon anatomical facts, and are therefore very important, because they admit of no exceptions:

1. If the paralysis be limited to distinct parts of one lateral half of the face, the lesion affects only individual branches of the nerve, and is outside of the cranium. An apparent exception to this rule is sometimes met with in connection with lesions of the crus cerebri—paralysis of the lower half of one side of the face being clinically observed to occasionally accompany a paralysis of the motor oculi nerve on the same side as the lesion.

2. If the fauces and palate exhibit paralytic changes, the lesion is within the cranium or in the temporal bone.

3. If the sense of taste be lost in the anterior two-thirds of the lateral half of the tongue on the same side as the facial paralysis, the lesion is either within the cranium, or in the temporal bone, above the origin of the chorda tympani branch.

4. If the sense of hearing is rendered very acute upon the same side as the facial paralysis, the lesion is probably within the temporal bone and involves the ganglionic enlargement found upon the nerve in the aqueduct of Fallopius.

5. Facial paralysis dependent upon cerebral lesions is commonly associated with hemiplegia, which may be upon the same side as the lesion or on the opposite side.

6. Crossed paralysis of the "facial nerve and body type" indicates a lesion of the pons Varolii posterior to the line which connects the trigeminus nerve with its fellow at their escape from the pons (Gubler).

7. If the lesion be situated in front of Gubler's line the facial paralysis and the hemiplegia will be on the same side.

B. The lips and tongue are particularly affected also in that disease of the medulla called *Duchenne's disease*, or glosso-labio-laryngeal paralysis. So marked is this loss of power, in severe cases, that a most characteristic facial deformity is induced. As the disease is commonly bilateral, the lips usually hang apart from each other and cannot be approximated. The tongue lies trembling and immovable in the floor of the mouth, if the paralysis be complete; but if paresis only exists, it can be imperfectly protruded with difficulty, and is tremblingly and slowly retracted. If the paralysis be unilateral, the healthy side of the tongue becomes full and prominent, in comparison with the affected side, when called into action. Speech and mastication are seriously embarrassed. The saliva is constantly expectorated, because swallowing is performed with extreme difficulty.

C. The facial muscles as well as the tongue exhibit a peculiar tremor in *paralytic dementia.* Small bundles of fibres composing parts of the tongue, or the delicate muscles of the face, are thrown into non-rhythmical contractions by emotion, or the performance of any voluntary movement, as when showing the tongue or teeth. These fibrillary tremors may sometimes exist even in the quiescent state of the muscles. The tongue occasionally exhibits coarser movements of a convulsive character. Late in the disease it may become atrophied or shrivelled.

The effects of this form of tremor upon speech are aggravated by an imperfect co-ordination of the mus-

[1] This article comprises, in substance, the subject-matter of a course of lectures delivered by the author before a private class of post-graduate students.

cles of the tongue and lips, which is simultaneously developed. Long or difficult words are omitted in conversation by these patients in a half-unconscious way, and the terminal syllable of other words is commonly left off. The speech becomes thick, and of a tremulous character. The shortest words possible are employed by the patient to convey his ideas. A distinct pronunciation of consonants and polysyllabic words, such as "constitution," "infallibility," "prognostication," etc., is impossible; hence, a test is thus afforded between carelessness of utterance and a physical inability to articulate.

An unnatural quietude of the muscles of the face and a slight disparity of the pupils are prominent features of its stage of development.

It is well to note, in this connection, a test which is of some value in deciding as to the existence of this special form of disease. Extend the patient's fingers and place them between your own, and a delicate, "parchment-like" fremitus will be felt, which is due to an otherwise imperceptible tremor of the hand-muscles.

D. The lips participate to a marked degree in severe types of *facial spasm*. In the clonic form the muscles on one side of the face are violently contracted and as suddenly relaxed. The eye is commonly affected simultaneously with the angle of the mouth. The spasms are marked by distinct paroxysms, whose duration varies from a few seconds to an hour or so. If the spasm is of a tonic variety, mastication and articulation are interfered with, and the paroxysms are of longer duration.

It is always well to search carefully for carious teeth in these cases; but the spasms may be due to cold, wounds, injuries to the trigeminal nerve, or chorea.

E. The lips may indicate some form of defect in the heart's action, if blue or purple in color. Scars at the corners of the mouth are strongly suggestive of previous syphilitic ulceration, a point of importance in the treatment of some forms of nervous disease.

F. The *gums* should always be inspected. If pale, anæmia exists. If blue along the line of junction with the teeth, lead-poisoning is present. If the teeth are loosened and the gums are soft and bleed easily, mercurial poisoning may be suspected; this is rendered positive if the breath has the "mercurial odor" and the saliva is excreted in very large quantities. Various cachexias, phosphorus-poisoning, purpura, and scurvy produce marked and often characteristic changes in the gums.

G. The *teeth* may afford much valuable information respecting the possibility of hereditary syphilis. Hutchinson has described the characteristics of such teeth with accuracy and detail. It is impossible to quote his

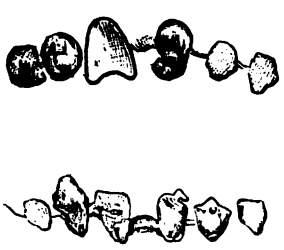

FIG. 8.—Syphilitic Teeth (Hutchinson).

deductions here, but the peculiarities of syphilitic teeth are now generally well recognized, and are often a valuable aid to the neurologist, both in diagnosis and treatment.

H. The *tongue*. Some diagnostic points regarding the tongue have been touched upon already. When the face exhibits any form of paralysis, it should be always carefully noted if the tongue exhibits fibrillary tremors; also whether it can be protruded in a straight line and moved freely in all possible directions. In testing speech, those words should be employed that require the normal power of movement of the lips (the labials) and of the tongue (chiefly the consonants). It should be also noted whether the words are clearly, rapidly, and distinctly articulated, or if the utterance of words is slow, thick, or slurred. Ragged edges in the tongue indicate epilepsy, because it is frequently bitten during the paroxysms. Imperfect mastication of food and difficulty in swallowing may be due to loss of power in the

FIG. 9.—Syphilitic Teeth.

tongue. A "furred condition" of one lateral half of the tongue indicates some irritation of the branches of the fifth cranial nerve; hence, the presence of decayed teeth, diseases of the gums or the maxillary bones, etc., should be carefully searched for. The tongue may be paralyzed on one side or on both. This condition is not infrequently due to hemorrhage, softening, or tumors of the brain, and it occurs in connection with embolism or the general paralysis of the insane.

Spasm of the tongue may be perceived in connection with chorea, epilepsy, hysteria, facial spasm, and as a result of slight compression or irritation of the hypoglossal nerve. Fibrillary tremors of the tongue are often encountered in patients afflicted with paralytic dementia.

FIG. 10.—Unilateral Atrophy of the Face, Tongue, and Palate (Bennett).

I. The *soft palate* may be implicated when the facial nerve is injured above the origin of the petrosal nerves. It is important to examine the palate, therefore, whenever Bell's paralysis exists, since the seat of the exciting cause may be decided by it. It may participate also in atrophic changes, as shown in Fig. 6.

The ear. Deposits of urate of soda are often found in the ear in gouty subjects. These may cause ulceration. Again, the lobe of the ear may become swollen, red, and glistening as an attack of gout is being developed. Among insane patients, the ear frequently becomes deformed from œthæmatoma. Persistent discharge of pus from the ear indicates disease within the temporal bone. Fatal brain complications may arise from an extension of such ear troubles to the coverings of that organ.

THE FACE AS A WHOLE.—Among the diseases of the nervous system, there are certain types of physiognomy which are so characteristic as to be of the most positive value in diagnosis. Thus, in the attacks of epilepsy the neck at first becomes twisted, the chin raised and brought round by a series of jerks toward one shoulder. The features are greatly distorted. The brow is knit; the eyes are sometimes fixed and staring, at other times roll-

ing about in the orbit, and again turned up beneath the eyelid, so that the cornea is covered and only the white sclerotic is to be seen; the mouth is twisted to one side and distorted; the tongue is thrust between the teeth, and, caught by the violent closure of the jaws, is bitten, often severely; and the foam which issues from the mouth is reddened with blood. The turgescence of the face indicates obstruction of the venous circulation; the cheeks become purplish and livid, and the veins of the neck are visibly distended.

During the fit of exacerbation, in an attack of tetanus, or lockjaw, the aspect of the sufferer is sometimes frightful. The forehead is corrugated and the brow knit, thus expressing the most severe type of bodily suffering; the orbicularis muscle of the eye is rigid, and the eye itself staring and motionless; the nostril is widely dilated, indicating the extreme distress of breathing; the corners of the mouth are drawn back, exposing the teeth, which are firmly clinched together; and the features, as a whole, have a fixed and ghastly grin—the so-called "risus sardonicus." During such paroxysms, as in those of epilepsy, the tongue is liable to become protruded between the teeth and to be severely bitten.

In chorea, the facial muscles participate in the general eccentricity of movement. Watson thus describes the peculiarities of this strange affection: "The voluntary muscles are moved in that capricious and fantastic way in which we might fancy they would be moved if some invisible mischievous being, some Puck or Robin Goodfellow, were behind the patient and prompted the discordant gestures. With all this, the articulation is impeded; there is the same perverse interference with the muscles concerned in the utterance of the voice. By a strong figure of speech, the disorder might be called 'insanity of the muscles.'"

In catalepsy the patient lies often with eyes open and staring, yet without expression indicative of life; more

FIG. 11.—Convulsion of Hystero-Epilepsy (Rosenthal).

like a wax figure or a corpse than like a living subject. The features may be made to assume any expression, no matter how absurd, as the tissues have their normal pliability; and they will remain so placed until again mechanically altered. This same peculiarity is also present in the muscles of the extremities, and forms one of the distinguishing tests of the disease. The mental faculties are in abeyance, and all power of voluntary motion is lost. The sensibility of the body seems also to be lost.

In hystero-epilepsy the contortions of the face and body are often frightful. In rare cases consciousness may be retained throughout the attack.

The deformities of face and intellect which seem to be the result of residence in special atmospheric conditions, or of certain well-defined localities, are illustrated in that race of people found in Valais and the adjoining cantons of Switzerland, called "cretins." Many of these wretches are incapable of articulate speech; some are blind, some are deaf, and some suffer from all of these privations. They are mostly dwarfish in stature, with large heads; wide, vacant features; goggle eyes; short, crooked limbs, and swollen bellies. The worst of them are insensible to the decencies of nature, and in no class of mortals is the impress of humanity so pitiably defaced. They are usually the descendants of parents afflicted with goître.

THE HAND.—Among certain forms of nervous disease characteristic deformities of the hand are sometimes encountered. These will be considered separately. Tremor and spasm of the fingers are also developed, in some cases, and require a hasty description.

The deformities of the hand that are commonly observed include (1) that of so-called "progressive muscular atrophy;" (2) that of a spinal disease known as "amyotrophic lateral spinal sclerosis;" (3) that of injury of the ulnar nerve; (4) that of injury of the musculo-spinal nerve; (5) that of injury of the median nerve; (6) that of paralysis agitans; and (7) that of gout and rheumatism.

The tremors of the hand include (1) those of a condition called "athetosis;" (2) those of chorea or St. Vitus' dance; (3) those of paralysis agitans; (4) those of the general paralysis of the insane; and (5) those produced by circumscribed lesions of the nerve-centres.

In progressive muscular atrophy the ball of the thumb is often the starting-point of the disease. This eminence gradually shrinks and disappears. It should be remembered that the disease affects symmetrical and homologous parts; hence both hands are liable to present the same deformity. Gradually the muscles between the bones of the hand shrink, so that the bones stand out unnaturally. Fibrillary twitchings over the affected muscles should always be looked for, as they are seldom absent. The temperature is lowered over the atrophied muscles.

In amyotrophic lateral spinal sclerosis the hand, when affected, is strongly flexed upon the forearm, the fingers are shut tightly upon the palm, and the thumb is drawn inward toward the fingers. Attempts to straighten the

FIG. 12.—Hysterical Contracture of Upper Limb (Rosenthal).

fingers, thumb, or hand will be strongly resisted, and cause pain. In course of time the affected muscles become markedly shrunken, thus adding to the deformity described. Fibrillary twitchings may be easily excited in the affected muscles, provided they do not spontaneously exist.

When paralysis of the *ulnar nerve* exists, adduction of the hand is no longer performed in a perfect manner, since the flexor carpi ulnaris can no longer act in unison with the extensor carpi ulnaris. Flexion of the hand is performed imperfectly and by means of the flexor of the radial side of the forearm only, since that muscle is supplied by the median nerve. The ability to move the little finger is almost entirely abolished. Complete flexion

of the inner three fingers is rendered difficult and sometimes impossible. The fingers cannot be separated from each other, or compressed into a close lateral juxtaposition, owing to paralysis of the interossei muscles; and flexion of the first phalanx and extension of the two terminal phalanges of all the fingers are rendered impossible, for the same reason.

When the ulnar nerve is paralyzed above the wrist, so that the interossei and lumbricales are alone paralyzed, the hand assumes a diagnostic attitude, the so-called "claw-hand," in which the extensor communis digitorum muscle extends the first phalanges of all of the fingers, while the other two rows of phalanges are flexed by the common flexor muscles of the fingers (the interossei and lumbricales being no longer able to flex the first row of phalanges or to extend the two other rows). This same condition of the hand may, however, be produced by a condition of progressive muscular atrophy of these muscles.

It must be remembered that this condition, if dependent upon ulnar paralysis alone, is more marked in the two inner fingers than in the three outer, since the lumbricales are supplied in part by the median nerve. This clinical fact seems to stamp the action of the lumbricales as similar to that of the interossei. Finally, the effects of ulnar paralysis may be manifested in the movements of the thumb, since it supplies two muscles which control it. This will be most apparent when the patient is requested to press the thumb forcibly against the metacarpal bone of the index finger, or to adduct the thumb.

When paralysis of the *median nerve* exists, the second phalanges of all the fingers and the third phalanges of the index and middle fingers cannot be flexed, and the thumb cannot be flexed or brought into contact with the little finger. On the other hand, flexion of the first phalanx, with extension of the other two, can be performed in all the fingers by the aid of the interossei which are supplied by the ulnar nerve. The position of the thumb is peculiar; it is extended and adducted and thus closely applied to the index finger, as in the hand of the ape. The hand, when flexion at the wrist is attempted, is strongly adducted by the action of the flexor carpi ulnaris, because the antagonistic muscle of the radial side is paralyzed. The act of pronation of the hand is seriously impaired. The inner three fingers can be brought into a partially flexed condition, since the flexor profundus digitorum muscle is partly supplied by the ulnar nerve. These combined effects give to the hand and fingers, and especially to the thumb, a position so peculiar that paralysis of the median could hardly be mistaken by an anatomist for any other deformity. When the paralyzed muscles begin to show the results of atrophy, the deformity in the forearm and in the ball of the thumb will further assist in the diagnosis of this affection.

The *musculo-spiral nerve* is more frequently affected with paralysis than any of the nerves of the upper extremity. It is particularly liable to both peripheral and central causes of paralysis; thus, in cerebral hemiplegia the muscles supplied by this nerve are, perhaps, more commonly affected than those supplied by any other nerve, while paralysis of these muscles is common as the result of chilling of the upper extremity, traumatism, and lead-poisoning.

The anatomical situation of the musculo-spiral nerve and the peculiarity of its course around the humerus probably explain the frequent occurrence of paralysis, since it may be easily compressed by sleeping upon the arm. It is common to meet with this type of paralysis in patients who have used their arms as a pillow, or in drunkards who have slept in some constrained position upon benches, steps, etc. Persons who have fallen exhausted and have rested upon the arm, and soldiers who have slept upon the damp ground, often arise with this form of paralysis. It is stated by Brenner that the coachmen of Russia, who are in the habit of sleeping upon the box with the reins wound around the upper arm, are victims to this condition; and Bachon reports the same result as common among the water-carriers of Rennes, since they pass their arm through the handle of the heavy water-pails to more securely compress them against the chest. The habit of the Russians of tightly bandaging the arms of infants to the body, and allowing them to sleep upon one side for long intervals, seems to promote the frequent occurrence of this trouble.

Among the other forms of traumatism which conduce toward this form of paralysis may be mentioned the use of poorly padded crutches, the kicks of animals, cuts, stab wounds, fractures of the humerus, dislocation of the humerus at the shoulder-joint, and the development of an excessive amount of callus after a fracture.

Rheumatic affections and a neuritis of the musculo-spiral nerve are reported as causes by Bernhardt and others; and cases of hysterical origin have been rarely but positively authenticated.

Finally, lead-poisoning must be mentioned as one of the most common causes of paralysis of the muscles supplied by the musculo-spiral nerve. The existence of this form of poisoning will have generally been indicated, previous to the appearance of paralysis, by colic, jaundice, and arthralgia, as the muscles are seldom affected until the latter stages. The extensor communis digitorum muscle is usually affected first, and the paralysis gradually extends to the other muscles supplied by the musculo-spiral nerve. The muscles of the arm are much less frequently affected than those of the hand and forearm; but in severe cases the muscles of the upper arm are involved, and the thumb and the index-finger cannot be extended or abducted; the patient cannot supinate the hand when the forearm is extended (this position being assumed in order to exclude the action of the biceps muscle), nor can the forearm be half bent and the hand half supinated by the supinator longus muscle; and finally, when the patient is instructed to flex the forearm, when placed in a position of half flexion and semi-pronation, the supinator longus muscle lies flaccid, and does not become tense and hard as in health. The loss of power in the triceps muscle renders it impossible for the patient to extend the forearm upon the arm when the arm is first raised above the head; nor can the forearm be extended with the same degree of force as the healthy side in any position of the arm. When the hand is laid upon the table, the patient is unable to raise the hand from contact with it, but the lateral movements of the fingers can be performed as in health.

In gout the joints become enlarged and seriously crippled by deposits of urate of soda, that cause prominent nodules upon the fingers. These often ulcerate The index and middle fingers are the ones most frequently deformed. Occasionally one finger will be drawn toward the palm by gouty inflammation in the sheath of its flexor tendon. If this deformity be found, always examine the other hand to see if a similar deformity is not more or less developed on both sides. If so, it is almost a positive sign of gout.

The diseased condition, called "athetosis" because the fingers do not maintain a fixed position, is characterized by a continual motion of the fingers and toes, and an inability on the part of the patient to retain them in any fixed attitude. These patients cannot keep the hand closed or open, even for a short period, although the fingers are to some extent under the control of the will. The toes are not commonly affected to the same degree as the fingers. The movements of the fingers and toes are perpetual, not being entirely arrested during the hours of broken sleep.

The tremor of paralysis agitans, or "shaking palsy," is markedly aggravated by voluntary muscular effort or mental excitement. Except in very aggravated cases, it ceases during sleep. During the daytime it is more or less persistent and uncontrollable.

In imbeciles rhythmic movements of the hands are

commonly met with. They are in marked contrast to the irregular and spasmodic movements observed in St. Vitus' dance. During an attack of acute hydrocephalus, or "water on the brain," the thumbs are usually flexed upon the palm. Langdon Down has described the so-called "woolly hand" of the idiot; the skin being too abundant for its size, and forming wrinkles upon it.

FIG. 13.—Paralysis Agitans, or Shaking Palsy (Rosenthal).

In all diseases which cut off the nerve-fibres from their centres of nutrition, or "trophic centres" as they are called, or after injuries to the nerves, the skin of the hand, as well as of other parts, may become smooth, shining, and affected with eruptions or ulceration. The nails and hair may also give evidences of imperfect nutrition.

THE GAIT AND ATTITUDE OF THE PATIENT AS A FACTOR IN DIAGNOSIS.—Among the symptoms which are brought to the notice of the neurologist by his perceptive faculties, none are more positively diagnostic than the abnormalities of gait and attitude which are frequently encountered. It will simplify description to consider first the more common abnormalities of gait, and subsequently the characteristic attitudes produced by nervous affections.

Gait of hemiplegia.—This condition (in which one lateral half of the body is paralyzed) is evidenced by a characteristic gait, if the paralysis is not so profound as to prevent all attempts at walking. The arm hangs limp or more or less rigid on the affected side. At each step the paralyzed half of the body is lifted, in order, as it were, to swing the weak leg forward. This movement causes the shoulder to tilt toward the healthy side, and the pelvis to be raised, while, at the same time, the leg is not bent at the knee as in health. The shoe of the paralyzed leg trails along the ground as it is swung forward, and the toe becomes worn off rapidly, a clinical point not to be overlooked. The back is not arched, as in the spastic form of paralysis, and the feet do not tend to cross the median line.

Gait of paraplegia.—Both legs (or, to be more accurate, the lower half of the body) may be more or less paralyzed, and yet the patient can walk. How different is the gait, however, from that of health! These patients shuffle along without raising either foot from the ground to any appreciable extent, so that they cannot be said to step. The progression is extremely slow, because the length of the step (if it may be so called) is very short. The heel of one foot rarely passes the limit of the toe of its fellow, if the paraplegia is well developed. This gait differs from that of spastic paraplegia chiefly in the absence of the stiffness of the legs and the interlocking of the knees, which are both present in the other. The so-called "hopping gait" is not developed as in the other form.

Gait of spastic or tetanoid paraplegia.—In the early stages of this disease a combination of paresis, muscular rigidity, and occasional tremor exists. The feet appear to be firmly glued to the ground during attempts at walking, and are scraped along with a characteristic noise. The feet often cross each other in walking, and the knees are liable to become locked together. These subjects are particularly prone to fall in spite of the use of canes or crutches, because the slightest irregularity in the pavement may catch their shoe as it is slid along the ground. These patients sometimes exhibit a "hopping gait" when the muscles of the calf become affected with spasm. The back is strongly arched and the chest is thrown forward. The patient throws his weight first on one cane and then on the other, in order to lift his body so as to move his feet.

Gait of paralysis agitans.—The tottering and trembling gait of these subjects, with a tendency to trot rather than walk when under full headway, is characteristic. The shaking hands are usually held out in front of the body, which is bent forward as they run. These subjects are generally well advanced in age. The head is projected forward and held stiffly when walking, and the "vertebra prominens" stands out in bold relief. Fig. 13 illustrates this point very well.

Gait of pseudo-hypertrophic paralysis.—These subjects are always children. The immense calf muscles are strangely in contrast with their paralytic symptoms. When they attempt to walk the gait has been aptly compared to the "waddling of a duck." The back is excessively curved in the erect posture, so that a line dropped from the shoulders falls behind the hips. The peculiarities of attitude of these patients will be considered later.

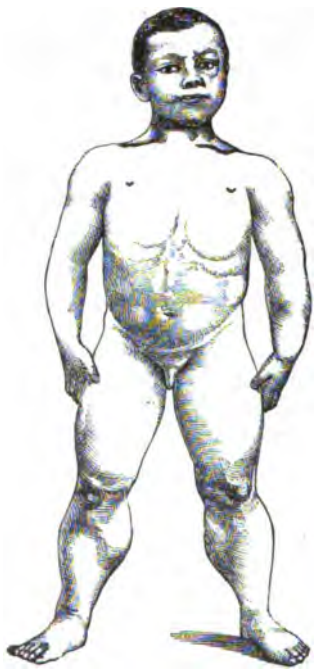

FIG. 14.—Attitude of Pseudo-Hypertrophic Paralysis (Duchenne).

Gait of locomotor ataxia or tabes dorsalis.—These subjects straddle as they walk. The legs are flung about in an uncertain and apparently aimless manner, although the steps are taken with marked deliberation. The feet are brought down with the heel projecting, thus creating

a "stamping" and "flopping" gait. These patients keep their eyes steadily upon the ground when walking. They have no motor paralysis, as is shown by testing the various muscles separately; the abnormal gait being due purely to an inability to properly co-ordinate the various groups of muscles. These patients are frequently subjected to severe and unexpected falls, and generally resort to the use of two strong canes.

Gait of hysterical palsy.—The feet are dragged or shuffled along in the paraplegia of hysteria, but one foot is usually more affected than its fellow. These subjects use a cane or crutch, or cling to articles of furniture as they sluggishly move about a room. It is liable to pass away suddenly and is usually developed as suddenly.

Gait of progressive muscular atrophy.—When the thigh and calf muscles are affected, or those of the back or abdomen, the gait is seriously altered. As a rule, these subjects walk as a sailor does upon land; only the "roll" is exaggerated, and the trunk is peculiarly poised upon the legs. The gait is, however, modified by the seat and extent of the muscular degeneration; as it is produced in each case by the inability of a certain set of muscles to perform their normal functions.

Gait of cerebellar disease.—Like all ataxic subjects, these patients stand with their feet wide apart, to increase their base of support. When walking they give evidence of imperfect co-ordination of the muscles of the legs. Sometimes they stagger and reel like an intoxicated person. If the feet are exposed the toes will be seen to be in constant motion when an effort to stand in one spot is made.

Gait of reflex paralysis.—This is generally of the "hemiplegic" variety. One leg is dragged along behind the other, in the large majority of cases.

Gait of cerebro-spinal sclerosis.—In this disease we meet a very characteristic gait. Slight jerking movements of the head and neck can be perceived in the early stages. Later in the disease the symptoms of marked inco-ordination of the muscles are apparent. The gait is then extremely unsteady and irregular, but totally unlike that of locomotor ataxia, in that the muscles of the trunk as well as those of the legs are affected. These patients do not walk deliberately and in a straight line, but shoot suddenly forward or to one side, and are very apt to knock against articles of furniture in moving about a room and to fall violently.

The attitudes assumed in the more severe forms of nervous diseases.—Nervous diseases tend in some varieties to produce abnormalities of attitude. The limits of this article will preclude more than a cursory view of this subject. A volume would be required to properly exhaust the headings already touched upon.

Among the more common causes of abnormalities of attitude due to nervous lesions may be mentioned epilepsy, tetanus, hydrophobia, spinal meningitis, hysteria, catalepsy, hydrocephalus, chorea, athetosis, arthropathy, the many forms of cerebral and spinal paralyses, the different types of tremor and muscular atrophy, contracture, or reflex spasm.

Of the characteristic attitudes some are observed only in the erect posture of the patient, and others when the patient moves about. Some are recognized when the patient is sitting; while again others are present in patients confined to bed. Attempts at movement of any kind sometimes increase the deformity; while again walking may gradually limber up other patients and render the defects of movement less apparent.

In connection with the description of facial evidences of nervous disease, the characteristic facial attitudes of Bell's palsy, Duchenne's disease, paresis of the muscles of the eye, paralysis of the third nerve, the convulsions of epilepsy and tetanus, the condition of catalepsy, and the facial spasm of St. Vitus' dance have been alluded to and in part described.

When the hand was considered the attitudes of progressive muscular atrophy, paralysis agitans, and the results of paralysis of the median, ulnar, and musculo-spiral nerves were described separately. The deformities of the hand in gout, and the attitude of the thumb and fingers in hydrocephalus, athetosis, and imbecility were also mentioned. It is not necessary, therefore, to again describe them.

It remains for me to touch upon some of the more important attitudes which have as yet been omitted.

In acute hydrocephalus the tuberculous deposit at the base of the brain creates a characteristic attitude when the condition is well developed. These children bore their head into the pillow and roll it from side to side. The thumbs are flexed upon the palms during sleep, even before the severity of the attack is reached. The pupils are at first contracted; but they become dilated when coma develops from the pressure of the deposit of tubercle upon the brain. The abdomen is markedly retracted.

Linked with cerebro-spinal meningitis we notice the rigid contraction of the muscles of the trunk, resulting in a curvature of the back. The head is also thrown backward and the muscles of the neck are more or less rigid. Fever and an eruption are also present.

After a "stroke" of paralysis, a state of rigidity and contracture of the paralyzed muscles often develops. It causes, as a rule, a state of permanent flexion in the upper limbs and that of extension in the lower. This post-paralytic contracture, if developed late, indicates a descending degeneration of those motor fibres of the spinal cord that have been cut off from their so-called "trophic centre" by the exciting lesion. It is always associated with a marked increase of the spinal reflexes; a point of great clinical importance. This condition is known as "tetanoid" or "spastic" paralysis. The peculiar gait of these subjects has been previously discussed.

In pseudo-hypertrophic paralysis the child first gives evidence of the commencement of the disease by a weakness of the legs and a clumsiness in walking which is exhibited by frequent stumbling and falls. Gradually the patient assumes a characteristic attitude and gait.

The attitude is very peculiar. In the standing posture the back is thrown beyond the proper position, so that a vertical line dropped from the shoulders frequently falls behind the sacrum; this antero-posterior curvature entirely disappears, however, when the patient is in the sitting posture. The feet are placed wide apart so as to increase the base of support. The heels are usually drawn upward by a contraction of the tendo Achillis. In the effort to preserve the balance the arms are held at the side with the hands extended, and the slightest touch may cause the patient to fall. Another remarkable feature of the disease is the difficulty which is experienced in rising from the recumbent, or even the sitting posture. The sufferer uses surrounding objects as a means of rising, drawing the body upward by the hands. When unable to reach such assistance the steps which are taken to rise are thus described by Gowers: "If laid, for example, on his back upon the floor and told to rise, he would first with great difficulty turn on his face; he would next get on his knees, his head being almost between his thighs; from this position he would gradually extend himself, so that he stands upon his feet and hands with all his limbs extended; finally he would extend the hip-joint by grasping the thigh with the hand and pushing up the body, as it were, by the arm." This movement of "climbing up the thighs," as it has been termed, is an indication of weakness in the muscles which straighten the knee and also those

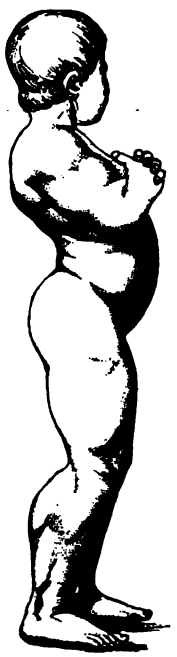

FIG. 15.—Profile View of Pseudo-Hypertrophic Paralysis, showing the Antero-Posterior Curvature of the Spine (Duchenne).

which extend the trunk upon the thigh—the extensors of the hip-joint.

The gait of these patients is associated with an oscillation of the body from side to side, or a waddling movement. The advance made at each step is very small, and a difficulty seems to be experienced in flexing the thigh upon the abdomen.

The muscles of the calf exhibit early a firmness and increase in size which is not proportionate to their motor force—as that is far below normal. Soon they become excessively developed, as do also those of the buttock; while the other muscles of the leg commonly grow smaller from atrophic changes.

The latissimus dorsi and the lower part of the pectoralis major muscles exhibit marked wasting in a very large percentage of cases. In some instances all the striated muscular fibres of the body, including even the heart, may become affected.

In spinal meningitis of the acute form the patient lies with the legs and thighs flexed, and shows evidences of great suffering in the countenance. The muscles of the neck are attacked by spasms which draw the head backward. The patient dreads all movements, because they increase both the pain and the spasms of the muscles.

Children affected with acute poliomyelitis are often delirious and have febrile symptoms. The paralyzed limbs lie motionless and the muscles are flaccid. Tremors and twitchings in the facial muscles and the tendons of the wrist are often observed, but they are the result of a rapid elevation of the temperature rather than a symptom of this special disease.

(To be continued.)

A FRONTIER STUDY OF DIPHTHERIA.

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FEW boast when diphtheria is discussed. Both lay and professional refer to it with qualms of the solar plexus. Some of our best men have again been consulted on this subject, but have nothing new to offer; they are silent as to the cause; they give no statistics of results; they differ as to the indications; and they distinctly enumerate forty-three different remedies that might be of use in an ordinary case of diphtheria.[1] Then, if these do not suffice, "symptomatics, roborants, stimulants, febrifuges, externally, internally, or hypodermically," may be drawn on. If there be irony in these facts it is not mine; and as to these men, we hold them in the highest esteem; they are among the ornaments of our profession. Then, too, a glance at the mortality lists tells how much we do not know about diphtheria—"the sepulchres make all the ground uneven."

Can nothing more be done? Yes, something can be done. While some must weep, others must watch, and give the result of their watching; and from such views and opinions, ever so conflicting, truth and progress must result. It may be slow—better slow than not at all. Considering how complex are the human organism and disease processes, it may not be wise or profitable to seek specifics for every malady; but it must be reasonable to hope to trace causes and test methods of treatment so far that this or that malady shall not prove an holocaust in every house, or hamlet, or community it visits; else of what use is the healing art? why should it not fitly fall into ridicule, since, when assistance is most needed, as in this malady, it can render little or none? There are communities in our States to-day in which diphtheria rages; but where, whether due to our real or supposed helplessness, medical aid is not invoked. "It behoves us to gain this battle. . . . How long to me it seems till some one come!"

My experience with diphtheria has been limited, but very peculiar. It has given me a fixed opinion as to its cause, and a successful plan of treatment. To this theory and practice I shall therefore adhere until better advised. A brief statement of my views (including results) by provoking friendly discussion, may help on the good work. During my first ten years in practice I had not treated a single case, but within the past three years I have treated sixty-four patients afflicted with diphtheria. The singular, simple, easily analyzed conditions under which all these cases occurred, give to this report whatever it contains of value.

1. The sixty-four cases were included in seventeen rural outbreaks, confined to seventeen houses. Three of these outbreaks occurred in summer; fourteen in winter.

2. The county-seat (population 7,000, founded 1873) has never had an endemic, nor an epidemic of diphtheria.

3. All these outbreaks occurred in houses that were comparatively new.

4. None of these houses had ever been occupied by any other family.

5. They are in a belt of country—the new Northwest—where white men never lived before; hence,

6. The soil was not saturated with sewage, and there was no accumulation of filth on the surface. One of these houses had been built and occupied but sixty days.

7. Diphtheria had never before occurred in this region; hence,

8. It was not an heirloom, and had it come by visitors or emigrants, it would in all probability have attacked the county-seat, the centre of travel and trade.

9. Each outbreak was far removed in time and place from all the others; one did not father the other.

10. Every house attacked was small and greatly crowded.

11. It was of the malignant type; many families lost five and six members each.

Derived from this singular experience with it, and also from the plan of treatment early adopted, my creed concerning diphtheria is as follows:

1. Diphtheria is caused by ochlesis or crowd-poison.

2. It is an emergency—"an event or combination of circumstances which calls for immediate action or remedy."

3. It is at first a local disease, resembling the animal poisons—snake-bite, mad-dog bite. Properly treated in this stage it is one of the most curable of diseases.

4. It is contagious and infectious, and the poison may retain its vitality from three months to two years.

5. This poison is not identical with that of measles, croup, or scarlet fever, nor is it intimately related to them.

6. Diphtheria may occur sporadically; any small, overcrowded, ill-ventilated house may prove a diphtheria factory.

7. Its period of incubation is from twelve hours to several days.

8. Soil and strata have no causative effect.

9. Directly, temperature none; indirectly, much. Crowding can occur in any temperature; practically it occurs most in cold weather.

10. In the local stage there is but one indication—to destroy the false membrane already formed; prevent further formation and spread. For this only two remedies are required as a rule.

11. In the stage of systemic infection there are two indications—the foregoing, and to support the system. A remedy or combination, internally, with food and stimulants meets this indication.

12. An abundance of pure air is the first requisite in treatment.

13. Being an asthenic disorder, and prone to heart-

[1] THE MEDICAL RECORD, December 15, 1883.

failure, rest in the recumbent position and warmth to the extremities assist in the cure.

14. The physician must not only prescribe, he must administer the local treatment, when present, and see to it that food and medicine are administered punctually in his absence.

15. The physician should visit severe cases three times a day; all cases at least once a day for the first nine days.

16. The physician should not despair, though called late. I have seen patients, apparently moribund, restored by fresh air and food alone. So have other observers.

Two desperate cases, in which, as a last resource, he had the children carried about in the open air all night and day, with their mouths open, and as much as possible facing the wind. Both patients recovered.[1]

The two remedies used in the local stage are lunar caustic and chlorate of potassa. Twenty grains of the former in one drachm of water is applied thoroughly every hour or two to the affected parts, and continued so long as there is formation of membrane, whether two days or seven. A saturated solution of the chlorate is used as a gargle every fifteen minutes. One ounce and a half of potassa is ordered to eight ounces of water. The latter administered internally, if the patient be too young to gargle. I use none but Squibb's. Common liquid food. This has been the sole treatment when called early.

With the second stage, or to forestall it, comes the second indication, to support the system, "the disease being of perhaps more lowering character than any other with which we are acquainted. As a rule, three remedies meet this indication: Chlorate of potash, tincture of iron, and quinine. For adults these formulæ are used:

℞. Tincture ferri chloride..... ʒ v.
Quin. sulph..... gr. xvj.
Syrup cort. aur.,
Aq. M. P.....ää. q. s. ad. ℥ iv.
S. A teaspoonful every two hours.

℞. Potass. chloral..... ..... ʒ iv.
Aq. dest..... ℥ iv.
S. A teaspoonful every two hours.

These are administered alternate hours, night and day, if patient be awake.

Five remedies—lunar caustic, chlorate of potassa, tincture of iron, quinine, and carbolic acid—meet both indications fully as a rule. In all cases carbolic acid is used as a disinfectant, and in nasal cases it is used in the form of vapor, or in glycerine, or in a one per cent. aqueous solution.

In the septic stage the diphtheria patient can hardly be overfed or over-stimulated. Many die for want of food and stimulants to tide them over, the popular notion being that sick people do not require food, especially those who manifest febrile action. Two quarts of milk, each pint holding a fresh egg in solution, one cupful of home-made beef-essence, properly seasoned, a pint of pure port wine, or half that quantity of pure brandy, form a fair skeleton of one day's rations for an adult. Food and stimulants are administered every hour.

Results.—Of forty-one patients thus treated from the early stage throughout, ranging in age from ten months to twenty-four years, not one death occurred. There was but one patient of the nursing age. Of twenty-three first seen after septic infection had taken place with various degrees of intensity, four died, three within twenty-four hours after my first visit, the fourth within thirty hours. I have already cited evidence that these outbreaks were malignant, and have already stated that a few of those restored seemed moribund when I first saw them.

[1] Ellis, p. 100.

The only original point in the treatment is the continuous local use of lunar caustic until membrane ceases to form. It is original so far as my knowledge extends. That great benefit resulted from a single application had been recorded by many observers, Sir William Jenner among the number.

Besides the point in treatment just mentioned, there are other articles of my creed that will appear new. It is not my desire to bolster them up with strained arguments, but it is no less than a duty to state why I adopted them. If they will not stand in their own strength, down they go. I am in search of facts; not to pervert truth. The first article shall be considered last, as it is the chief, and requires lengthier statement; to it nearly all others converge.

9. Diphtheria may occur at any temperature, but occurs mostly in cold weather. Three outbreaks in warm months; fourteen in cold months. Of the three summer outbreaks these are the facts: The three houses are eight and sixteen miles apart, and the attacks occurred in different seasons. The people of each are unknown to each other. Two of the three were sixteen miles apart, and in different seasons were suddenly changed into boarding-houses, the one of twenty men, the other of thirty men besides the original family. In each instance, in less than two weeks after the great crowding (for the houses were small log-houses in the country, which could not comfortably accommodate more than three souls) diphtheria broke out violently, removing five members of one family and three of the other. In the third instance a family of ten persons, consisting of parents and eight children, moved into a small one-room log-house, having a frame out-kitchen attached, just large enough to hold the cook-stove. In less than two weeks five of these children had died of diphtheria, and my first conquest over this malady was achieved in saving the other three, who were very low when I was called. The county commissioners rewarded me very liberally for this work, for the house was situated on the poor-house farm. For the purposes of this report I asked Mr. Sheldon, the keeper of the poor-house farm, to take the measurement of this house for me only last week. He reported that a prairie fire had consumed the log-hut, but that the exact outside measurement of the foundation was thirteen by sixteen feet. Subtracting fifteen inches for the unhewn log-wall, and there remained a room eleven and three-fourths feet wide by fourteen and three-fourths feet in length; ceiling in proportion, about six and a half feet in height, the sole eating-room, sleeping-room, sitting-room, home of ten souls!

I simply state facts which can be proved by one hundred credible witnesses. There was no diphtheria in all this county when the first, second, and third of these outbreaks occurred. Does it not seem that the poison which caused the disease must have been generated in each of these homes? And do not the facts in these three instances point—call it ever so slightly—to ochlesis, or crowd-poison, as the cause of diphtheria.

Then, again, from many outbreaks that occurred in cold weather other facts are gleaned. It can be proved by the Signal Office reports from this district that many of these outbreaks occurred when the temperature had averaged thirty and forty degrees below zero (Fah.) for many days previous to the outbreaks. This would have been death to all ordinary surface germs; but it has already been shown that in those sites (one house only sixty days erected) there could have been no saturation of soil with sewage or accumulation of surface filth—pretty city theories. More than this, I attended an outbreak on the night of January 17, 1883, at a temperature of sixty degrees below zero (Fah.), when the surface of the earth and of all bodies of water were frozen solid as a rock at least three feet in depth. This was at the house of Peter R——, Dane Prairie, Ottertail County, Minn. The cold ride was rewarded, the young woman recovered; but this man lost three children from this disease soon

after, treated by another, because he considered fifteen dollars too much for my twenty-mile midnight ride, at sixty below zero. What sewage vapors, supposing them there, would emanate from a soil thus frozen at this temperature, and covered with snow too? I have asked this question of the best engineers, apropos of this report, and they replied, "Don't ask a mule that question—it is absurd—no foul gases could escape from the soil at that temperature." The same must be said of surface filth, if it were there.

So, then, soil and strata, as causative agents, are ruled out, at least in this case. Why had it not occurred in this house before? The house had been erected some years. I cannot say, but will state some facts. To my own knowledge this was the coldest night in five winters, causing the inmates to huddle closely together in the one living room. The family proper had been increased by one every year, and then there was the district schoolmaster and a young lady visitor—nine at home—in the one small living room.

7. If two cases can prove anything, here are two which prove that the period of incubation need not be more than twelve hours. Both are exactly alike. (1.) A very intelligent young man drove into the country from the county-seat (which had had no diphtheria), on Sunday afternoon, to visit a family of his acquaintance. The family, unknown to him, had another visitor—diphtheria. He remained all night, however, and early next morning he returned to town stricken with it. (2.) The other young man, a dull-headed new-comer, likewise on Sunday afternoon, visited a friend's house, three miles from town. Two years before, the only child there, a daughter, aged ten, had had diphtheria. Next morning this visitor was down with diphtheria so that he could not return to town. He had lived some months prior in town. During this time there had been no diphtheria in town.

6. Needs no discussion; each of seventeen outbreaks seemed to prove it.

5. Of sixty-four cases here reported no single instance was complicated with croup, measles, or scarlet fever. If this virus were identical with theirs, they must have appeared; if intimately related, they would have been likely to have appeared. Conversely, five years ago an epidemic of scarlet fever visited this place, but no diphtheria with it, and four years ago an epidemic of measles, but no diphtheria with it. In five years' practice here I have not seen a single case of true membranous croup. Their occasional co-existence proves nothing. The malarial and typhoid miasms often commingle, and the diphtheritic symptoms are usually observed in the later stages of these diseases (measles and scarlet fever) when the popular dread of the disease striking in has caused all fresh air to be shut out, and throats are tender.

4. (1.) The case just cited of a young man (7, No. 2,) who left town Sunday afternoon for a visit to a house in the country which had had diphtheria two years before, and was taken down with it there early next morning, seems to prove that the virus may live two years. He had lived in the town some months. The town records show there had been no diphtheria there. (2.) A family living in the country was "visited" by diphtheria, causing the death of three children. Meantime one child, a boy of seven, was absent on a visit. The house was disinfected and three months had elapsed; then the family physician gave permission to the absent child to return. Within two weeks after his return he was buried—with diphtheria. (For this record I am indebted to a very intelligent physician from the southern part of the State. It did not occur in my own practice.)

3. Many careful observers regard it local at first. Watson called it "a severe inflammatory disorder of the throat."[1] Ellis says, "the primary seat of the disease may be the mucous membrane of the tonsils, palate, uvula, or nares."[2] West: "Although the soft palate and tonsils are the parts on which the deposit is first observable, it often does not remain limited to those situations."[1] Sir William Jenner, regarding it primarily local, advised one application of lunar caustic. Many others, whose names I cannot now recall, regard it local at first, and the closely, candidly observed facts prove it. In my sixty-four cases even the untaught parents so regarded it. If there are cases in which the membrane is first deposited in the stomach, bowels, or anus, as some assert, it must be very exceptional and does not annul the rule—the law that "tonsils, palate, uvula or nares" are the primary seat. Forty-one patients were restored by local treatment alone. How could this be if the cause, the virus, the disease, were not then local?

That it is an animal poison is rendered probable by the fact that in the early stage the types of these are subdued by the same identical remedy, nitrate of silver. I have treated dissection wounds and mad-dog bite successfully with this sole remedy, and snake-bite is so treated. It is standard treatment, "but it is imperative that it should be adopted at the moment of receiving the bite."[2]

2. All the facts—the ease with which it yields to early treatment, the great difficulty experienced in subduing it later on—prove it an emergency "which calls for immediate action or remedy." I find that the people appreciate more fully than the profession that the disease is of local origin, that it is at first a local disease, and that it must be treated "right off."

1. That it is caused by crowd-poison, and by this I do not mean "a morbid condition induced by the crowding together of sick persons under one roof," as Dunglison defines it,[3] but by the crowding of too many well persons under one roof.

The following are the special facts which lead me to think that overcrowding was the great pathogenetic agent:

1. Excessive overcrowding was manifest in every house attacked.

2. Excessive overcrowding was the *only* unsanitary condition present. Premises new. No filth, no sewage.

3. None of those attacked had been exposed—the disease did not previously exist in the locality,

4. There were no paludal causes. If there were, the extreme cold (forty to sixty degrees below zero) would have rendered them inoperative.

5. Three outbreaks in summer, fourteen in winter (practically we have but two seasons here). They occurred mostly in winter, because there is more crowding in winter. All hands are in-doors.

6. Was the virus borne in the air from Orion or the Pleiades, or even from the moon or the Alleghany mountains, and dropped quietly into one house out of a pretty well settled county, forty-two by fifty-four square miles in dimensions? This, though the generally received theory—a mysterious something coming somehow, from somewhere afar off—is absurd; and both this and the fact that, strain my mind as I may, I can conjure up *no other reasonable cause* to which to attribute it under the simple conditions described, counts another argu- in favor of ochlesis.

But why go to Calcutta to find Black Holes that kill, when they exist all around us? Why invoke nebular and antipodean causes, when the real cause may lie at our feet? Peter Parley tells us of an ancient philosopher who was much given to star-gazing. Once, while indulging in his favorite pastime, he fell into a mud-puddle, and then swore off. I fear that, like this sage, we have been soaring too high to find the essential facts of diphtheria. We do not apply the knowledge we have. We forget that while the exceptional man, the *rara avis*, deserves the pretty climax of compliments paid him by William of Avon, the average man ranks not so high, and the lower man approximates more closely to the brute

[1] Condie's Watson, p. 564.

[2] Ellis, p. 98.

[1] West, p. 335.

[2] Holmes' System of Surgery, vol. i., p. 431, supra.

[3] Edition of 1868.

and serpent—he wallows in his own filth, or fangs himself to death with his own venom. Said Mr. Beecher—who is a good physiologist—in passing through this region a few months ago: "In this pure air I should think few physicians would be needed." I replied, "The air here is as pure as any on this continent, but don't you know that man is a veritable harpy—that living as well as dead, he breeds putrescence?" "Yes," he replied, "I know that man is the most poisonous animal in the world."

Since the above was written I have treated five more cases. All recovered. A child, four years of age, and his mother, aged twenty-four, had it in one house. In the other instance the family consisted of seven children, aged from eighteen months to fourteen years, the parents, and a hired man. On my arrival three of these children were dead, and the fourth—the youngest—lay dying. I reached the house toward midnight, and this child died soon after daylight. The remaining three lay prostrated with the same genuine, malignant diphtheria. I sprinkled the room thoroughly every hour during the night with a solution of carbolic acid, and ordered the walls and ceiling to be whitewashed next day, and the floors scrubbed with a solution of carbolic acid, and that it must also be added to the whitewash. This, with my usual treatment, resulted in the rapid recovery of these three. I almost forgot to state that first of all I made provision for entrance of air.

SCARLATINAL ANGINA FOLLOWING EXPOSURE TO A CASE OF EQUINE SCARLATINA.

By J. W. STICKLER, M.D.,

ORANGE, N. J.

In the early part of February, 1884, I was informed by Dr. Fenner (D.V.S.) that he had a case of equine scarlatina. I immediately went to see it. The horse was twelve years old; there was considerable swelling of the nose, sheath, and extremities; the latter showed a uniform œdematous enlargement; sheath somewhat sensitive to pressure; submaxillary glands enlarged and sensitive; throat inflamed and painful; thin watery discharge from nostrils; eyes suffused; mucous membrane of nostrils showed a bright red eruption; the spots were about as large as a pin's head; pressure caused them to partly disappear; I collected some of the nasal discharge and examined it microscopically. It contained, besides flat nucleated epithelial cells and extraneous matter, numerous small spherical bodies which were very active.

When Dr. Fenner was called to see the horse he gave him a bolus; but in his effort to push his hand far back into the throat, he abraided the skin of his forearm on one of the animal's teeth. In a few hours a slight inflammation began, followed by the formation of a pustule with a red areola. About the seventh day after receiving the abrasion and exposure to the breath of the horse, the doctor experienced chilliness, loss of appetite, headache, and nausea. In a few hours his temperature began to rise, and his throat became sore and painful. Pulse 120 (February 20th). His tongue was somewhat furred at first; later, glazed, red, and its papillæ *very* prominent, so as to give it a typical strawberry appearance. There was sufficient exhaustion to make it necessary for him to remain in his bed several days, the time of confinement in his room being about fourteen days. His urine was examined, but no albumen found in it. There was no desquamation of the cuticle. There developed upon the right side of his thorax "herpes zoster" about one week prior to his visit to the horse, other than this there was no eruption discovered. The doctor who attended him was, and still is, of the opinion that he was dealing with a case of scarlatinal angina, due to exposure to the breath of the horse, or to inoculation with the virus from its mouth. The diagnosis "scarlatinal angina" was made because of the *characteristic appearance of the tongue and throat*, in connection with the constitutional disturbance, which was more severe than generally obtains in simple sore-throat. Dr. Fenner had not been exposed to any case of human scarlet fever, so far as he knows, so that it is only fair to assume that he contracted his sickness from the horse. This case is interesting because it is the only one, to my knowledge, that has been recorded in recent medical literature. It is, moreover, in perfect agreement with Dr. Copland's statement, made in his "Medical Dictionary," to the effect that scarlatina has been communicated from horses to man.

That horses have scarlet fever I think there is no reasonable doubt. If the literature upon the subject (as condensed by Dr. J. C. Peters) be consulted, there will be found much to support a belief in its existence, and but little that is unfavorable to such belief. I have succeeded in reproducing it in a mild form in two colts, and if it is communicable from man to the horse, why should it not be again transferred from the horse to human beings?

Whatever may be said for or against this theory, the above is a true record of what actually resulted from exposure to a horse having the symptoms regarded by many veterinarians as characteristic of scarlet fever.

Progress of Medical Science.

The Heart in Pneumonia.—Dr. De Giovanni finds that, as a general rule (*Annali Univ. di Med.*) the heart in pneumonia is increased in volume. But this increase varies in different cases in extent, time, and mode of origin. The nervous system is an important factor, although not the only one, in the variations of the cardiac area. By hastening or retarding the movements of the heart, it influences the general circulation; and by its action in dilating or contracting the vessels, it affects the local circulation, and also influences the temperature of the body by now checking and now encouraging the radiation of heat. The author combats the opinion that the fever follows faithfully in its oscillations the morbid process. Elevation of temperature does not invariably correspond to a new extension of the inflammation. The variations of the cardiac area often coincide with modifications of the nervous system and with fall of temperature; nervous depression, often with general prostration and profuse sweating, favors dilatation of the heart. In the thirty cases of pneumonia examined by the author, increase of the cardiac area was found in all. The heart may be dilated, and persist so throughout, or may offer oscillations in the course of the attack. In the majority of cases the cardiac area is increased by dilatation of the right heart, but there is sometimes a general dilatation. Although the embarrassment to the circulation in the lung may be very great, the right heart does not always dilate in proportion to the obstruction to the pulmonary circulation, but may remain almost in the normal state; and from this it is seen that it is not the increase of the intracardial pressure only which causes the dilatation. In each case the share which the embarrassment of the circulation, the general and the local nervous function, and the original cardiac organization, take in its production, must be determined by exact study of the dilatation. The liver is also generally enlarged, and its increase may precede or follow that of the heart. The author insists on the great practical utility of these researches. If the cardiac dulness increase, there being no great embarrassment to the circulation in the lung, the resistance of the heart is not of the best, either from original want of activity in the left ventricle, or from depression of the general innervation, or from gastro-hepatic complication. From the knowledge of the cardiac dilatation, one can foretell that the patient is not going to do well, even if the other symptoms do not show it, and can draw valuable conclusions as to treatment according to the factors producing the dilatation.

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ANTISEPTIC FIELD-SURGERY.

IN how far the principles of Listerism may be available on the battlefield, has been shown by the results obtained by Reyher and Bergmann in the Russo-Turkish war, and by the English surgeons in Egypt. Reyher gave instructions that no wounds were to be examined at the front, either with fingers or instruments, except in cases of injury to blood-vessels and when the walls of a cavity were wounded. His instructions may be summed up thus: "Occlude the wound provisionally, lay the wounded part in a suitable position on the litter, and render it provisionally immovable."

The dictum of Nussbaum—"The fate of the wounded man lies in the hands of the surgeon who first attends him"—has been repeatedly proven to be true, and the statistics of Reyher and Bergmann show what antisepsis can do, even amid the difficulties attending the surgeon on the battlefield. Reyher had 81 cases of gunshot wounds of the knee; of these 18 were treated antiseptically throughout, 15 recovering. Forty cases had been treated non-antiseptically before he saw them; 34 died, and of the 6 who recovered 5 lost their limbs. The remaining 23 cases were treated altogether without antiseptic precautions, and 22 died. Bergmann had 15 cases of compound fracture of the knee-joint. They were treated antiseptically, 14 recovering, and 2 losing their limbs.

At a late meeting of the Woolwich Military Medical Society, an account of which may be found in the *British Medical Journal* of February 23d, Surgeon-Major Godwin read a paper on this subject, which was ably discussed by several prominent surgeons. Sir James Arthur Hanbury, in the course of his remarks, stated the problem in this manner: What is the best line of action toward the wounded, between the fighting line and the field-hospital, in order to secure satisfactory results from the very outset? This is undoubtedly the question which must be correctly answered in order to arrive at the best results; and he well says that "the most important duty will be the selection of fitting places for immediate treatment (dressing-places), and in a future war surgeons must be selected for this task, as upon their judgment will depend the lives of many men." But there are other requirements which must be complied with before this. That the surgeon at the dressing-place should carry all the materials for antiseptic dressings is almost impossible. That each soldier should carry with him the necessary materials for dressing his wounds is both possible and feasible. As to the materials which the soldier should carry, many valuable suggestions have been made. Surgeon-Major Godwin states a broad truth when he says that it does not matter very much what preparation is used, so long as it is light, dry, antiseptic, and therefore absorbent, as salicylated lint or cotton, boric lint or cotton, or absorbent cotton, or, better still, cotton-wool. In place of Esmarch's tampons (in his field-dressing) he suggests a fold of cotton-wool, because, in case of a lance or sabre wound, the tampon cannot be used. Dr. W. F. Stevenson's suggestion of salicylated spongio-piline or salicylic wool is exceedingly valuable, and easily prepared. This dressing is divisible into pieces of about four inches square, each piece containing ten grains of salicylic acid, antiseptic wax (containing eucalyptus, or carbolic or boracic acid) being plastered over the surface. This wax cleanses the surroundings of the wound, and renders it perfectly aseptic. This packet also contains antiseptic bandages, light and easily adjusted, for binding on the dressing.

Sir Joseph Lister advocates the use of iodoform for the first dressing. In the form of iodoform-wool it is a most excellent antiseptic dressing, and possesses the advantages of being very little soluble in water, or in wound-discharges, so that a small quantity lasts a long time; besides, it is almost entirely free from irritating properties. With this combination of advantages there can scarcely be a better first dressing than dusting the wound over with iodoform powder, and then covering it with some absorbent substance. Iodoform forms one of the ingredients of the portable dressing recommended by Lesser, of Leipsic, which was highly praised by Sir Joseph. This consists of two parts of boracic acid and one of iodoform powder. It would be better, however, to use the iodoform powder pure, because the antiseptic should be carried in small bulk, and boracic acid is far less effective than iodoform. Lesser recommends that the soldier should have a cartridge filled with this powder; around this is a bandage four yards long, similar to those proposed by Dr. Stevenson, somewhat like antiseptic gauze, or made of open cotton texture impregnated with spermaceti; around this again is a piece of absorbent cotton, the whole enveloped in a three-cornered handkerchief, which can serve so many purposes.

Whatever the packet carried by the soldier may consist of, it should be sewed on to his coat. The haversack is a bad place for it, because it is often lost; and his pockets, should he have more than one, are too much taken up by tobacco and other articles for his immediate personal comfort. Surgeon Longmore states that the soldiers in Egypt were instructed to carry the field-dressing in the left-hand trousers' pocket; but on examination many of them were found to have no left-hand pocket in the trousers, there was only one pocket, and that on the right side.

After the first dressing on the field, and when carried to the field hospitals, the soldier is in a position to have more careful attention paid to him. Surgeon Marston thus describes the field-hospital dressing on the day of the battle of Tel-el-Kebir: The wounded part was first washed with a 1 in 20 solution of carbolic acid, and then dusted lightly with iodoform. A piece of protective was

then dipped in the carbolic solution, and placed upon the wound, then two or three layers of boracic lint, and above that the gauze bandage. This dressing answered perfectly well. As regards the spray, we need only say that even Professor Lister stated that he thought it entirely unessential and out of place in the field-hospital, as indeed it is in almost every other place. Corrosive sublimate he regards as the most valuable antiseptic for the hospital, and states that while not soluble in less than sixteen parts of cold water, it is soluble in one and a half times its weight of cold glycerine, a very important point, for by first making a solution of it in glycerine, a little of this may be poured into water, and the solution is ready. For a ready dressing, old sheeting or other rags may be torn up and soaked in a solution of equal parts of glycerine and sublimate, and two hundred parts of water. They are then hung up to dry, after which they are ready for use.

On only one point do we take issue with Professor Lister. He states that if a sponge be purified with a 1 to 1,000 solution of sublimate, it will remain pure, whether kept for a week or a year. The experience of many surgeons has already shown that this is not always true.

THE MEDICAL SERVICE ON TRANSATLANTIC STEAMERS.

We are pleased to notice that our leading editorial of January 26th, calling attention to the present defective medical service on transatlantic steamers and the grave public danger resulting therefrom, is arousing attention in outside circles, and may soon lead to satisfactory results. The New York *Tribune*, ever foremost in the good work of reform, has taken the matter in hand, and seems determined to test the accuracy of our statements.

The *Tribune* of Tuesday, the 18th inst., reports a long and searching interview with Dr. J. A. Irwin, who has been the leader of the recent agitation on this subject in England; the issue of the following Thursday contains a series of sweeping contradictions by the principal steamship agents in this city, and that of Tuesday last Dr. Irwin's reply.

If, as is unquestionable, the efficiency of this service is a matter of first importance not only to those who travel by sea, but also to the American people at large, since it should constitute our strongest barrier against the importation of infectious disease, no pains should be spared to ascertain the truth of these conflicting statements, and if even one-half of the charges advanced can be substantiated, a thorough and radical reform should be enforced by Act of Congress.

When confronted by a *Tribune* reporter with the statement of Dr. Irwin that, "of one hundred and forty-one surgeons who, during the first six months of 1882, had medical charge of English steamers, carrying passengers to America, sixty would have been ineligible through lack of professional qualification for any medical appointment in the English army, navy, prison, asylum, or poor-law services," the agent of the White Star Line is reported to have said: "That is absolutely false, and if you want to use my name you can do so." The doctor replies that his statement, published in all the leading English papers and never before contradicted, is founded upon an official Parliamentary return, issued by the English Board of Trade in compliance with an order of the House of Commons, and giving the name, age, and qualifications of every surgeon employed on these steamers during the period named. He adds, that his statement was reiterated by Sir Lyon Playfair, M.P. (Chairman of Committees in the House of Commons) on the occasion of a deputation to the President of the Board of Trade inaugurated by the British Medical Association.

The significance of this return, taken in conjunction with a common neglect of sanitary precautions and the insufficient means of combating disease on board these steamers, lies in the fact that there exists a high mortality among passengers to this country—a mortality which is declared by those well qualified to judge to be far in excess of the necessities of transit. The steamship agents deny this. They say, "There is very little need of medical attention on shipboard;" "There is very little sickness on the sea;" and in one instance, "It is all humbug;" but the facts are unmistakably against them, and by the facts the case must be judged. Official statistics, collected at Washington and published by Dr. T. J. Turner, prove that the mortality upon European steamers carrying passengers to this port during the ten years ending December, 1880, was at the rate of 44.6 per 1,000 per annum, while on fifteen particular steamers during 1880 it was as high as 70.6 per 1,000 per annum.

And, as Dr. Irwin somewhat pertinently points out, another Parliamentary return, issued last year, shows, that upon the two lines (the Anchor and Guion) whose representatives are loudest in their denial of sickness occurring on board there was, during the period dealt with, a larger proportion of deaths to those carried across than on any of the other regular English lines.

The steamship agents are in this quandary: they must either disprove official returns, both American and English, defend a service whose inefficiency results in serious loss of life, or honestly admit the necessity of reform. But the controversy cannot end here. The interest of the public forbids it, and we cordially encourage our public-spirited contemporary to continue his investigation, promising him the sympathy and support of the medical profession.

TEACHING THE PHYSIOLOGY OF NARCOTICS AND STIMULANTS IN THE PUBLIC SCHOOLS.

Under the stimulus of temperance agitation there have been introduced into the Legislatures of several States bills making it obligatory to teach in the schools the physiology and hygiene, with especial reference to the effects, of alcohol and tobacco.

There can certainly be no objection to such a measure if it is carried out sensibly, and not along the lines laid down by fanatics. It will do no good to teach children that tobacco is a deadly poison to the human system when they all the time see their paternal parents thriving upon and enjoying it. Nor would it be right to instruct children to the effect that alcohol is uncompromisingly and uniformly harmful, for they may grow up and find they have been deceived. Let children be taught the hygiene which medical science indorses, not that of the apostles of teetotalism and of anti-tobacco societies.

MEDICINE IN TEXAS.

UNDER the stimulating influences of medical journalism, as represented by the enterprising *Courier-Record*, medical affairs in Texas are beginning to have a more promising outlook. The profession has heretofore been in a somewhat disorganized condition. The State Society has existed *de jure* for fifteen years, but it has never yet accomplished very much, either in uniting the profession or promoting medical science. At the next meeting, however, which occurs on April 22d, at Belton, as we are informed, a change will be initiated. Extra efforts are making to secure a large representation and to make the Society take some step in organizing a State Board of Health and in securing a law to regulate the practice of medicine. The question of starting a medical college is also being actively discussed, and the meeting of the State Society will furnish an opportunity for initiating some definite action thereupon.

That Texas needs the purifying influence of a State Board of Health and active medical organizations there is no doubt. The *Courier-Record* furnishes an interesting illustration of the fact in a letter written by a Texas "doctor," living in one of the new counties, to a "chum" in another State. This remarkable document reads as follows:

"I found to my relief, when I arrived here, that there is nobody to interfere with my business, and that it is all a mistake about you being examined. They ain't no board of health in this State, and nobody asks no questions. The only thing, office rent is high, and has to be paid up in advance, as everything else. I got into practice without difficulty; sent for right off to a respectable lady with womb complaint, and got a good paying case; also some other cases the first week I was settled. The doctors are inclined to be ofish and unsociable, but the people is friendly enough; it is because they don't want anybody to come in competition. You can come along without being afeard of any examining board or license."

The letter shows, in an amusing and striking way, not only the state of medicine in Texas, but the feeling that is gradually being developed among quacks and irregulars by the creation of Health Boards and licensing bodies. We trust that Texas will soon cease to be a place from which a "medical man" can write that "there ain't no board of health."

MEDICINE IN VIENNA.

"MEDICINE in Vienna during the Last Hundred Years," is the title of a work by Dr. Theodor Puschmann, Professor of Medical History at the University of Vienna. As its name implies, this is principally an account of medical progress at the Austrian capital during the last century. But before introducing us to those personages who have rendered themselves illustrious of late years at the University of Vienna, our author gives a graphic sketch of the early struggles incident to the permanent establishment of that medical faculty which to-day sheds its light abroad to even the remotest haunts of the disciples of Æsculapius. How uncertain, how infirm, how grotesquely unpromising were these first beginnings!

In 1744 Maria Theresa requiring a physician, sent to Leyden for the gifted Van Swieten, who, after much preliminary persuasion, was induced to come to Vienna. Van Swieten, who was not only a scholar, but a man of action as well, succeeded in inaugurating a series of preliminary reforms in medical and surgical matters. That such reformation was necessary is abundantly evident when we read that some time previous to Van Swieten's advent (1718), the regular professors of medicine and surgery received but from one hundred and ten to one hundred and seventy florins yearly! These are certainly statistics well calculated to make even the most enthusiastic disciple of the healing art tremble.

The activity of Van Swieten in the cause of medical reform seems incredible; and although he was unable to execute all the projects which he contemplated, enough was accomplished to entitle him to the position not only of a reorganizer but of a recreator of the Vienna Medical School.

The impulse which Van Swieten had given to medical study expressed itself almost immediately in increased literary activity—a movement, by the way, which not only made itself felt among the faculty of the university, but was manifest also among the large body of practising physicians.

It was reserved for the physician Anton Stoerck to profit by the fruits borne by the reforms inaugurated by Van Swieten.

Stoerck inaugurated a series of investigations on animals as to the specific effects of certain drugs. Among others he sought to elucidate the pharmaco-dynamic importance of *Hyoscyamus niger L.*, of *Datura Stramonium* and *Pulsatilla nigricans L.*

The great fault of Stoerck's investigations is, however, his inability to separate collateral phenomena from those obtained through the agency of the specific principle resident in the drug itself.

It is, however, in that portion of the work which deals with the recent history of the medical faculty that the most interesting matter will be found.

Rokitansky, Meynert, and Billroth constitute a potent spell in themselves. Of the latter it may truly be said that he has long occupied the position of dictator in matters of general surgery. Nor is this fame of the great surgeon founded alone upon his own individual achievements; but, on the contrary, a brilliant constellation of disciples will serve to bear witness to the genius of the teacher, when the master is no more. Czerny, of Heidelberg, Menzel, Steiner, and Von Winiwater, of Lüttich, are among those whose fame is more or less the outgrowth of their professional connection with Billroth. In our own land, where science may truly be said to bear a cosmopolitan stamp, the name of Billroth has long been famous. Many of us have had the opportunity of witnessing his wonderful address in the amphitheatre; and his courtesy and respect toward Americans will not soon be forgotten.

Dr. Puschmann has certainly given us the best history of medicine in Vienna which has ever appeared, and his book will be found most interesting, particularly to that large class of American physicians who are well acquainted with the medical institutions of Central Europe.

THE LAITY AND FREE DISPENSARIES.

We are always glad to publish such a letter as may be found in our last issue, on the "Advice Gratis System," etc., and especially when, as in that instance, it comes from a layman, for it has not been until lately that the laity have duly appreciated the nature and extent of the injury they do in countenancing or aiding the army of free dispensaries that are saddled upon this and other cities.

Fortunately they have been waking up slowly to the fact that indiscriminate charity is one of the most serious obstacles in the way of those who have the welfare of the poor at heart. Indeed, such pseudo-charity in the end entails much mischief, not only encouraging improper persons to seek for aid, but discouraging the really deserving, who see the ease with which frauds may be successfully practised, and therefore lose the incentive to make an honest effort toward self-support. "Help the poor to help themselves" is a principle that should underlie all others in the administration of public and private charities.

For such seasons as these we are sorry not to have a good word to say in behalf of a public appeal for the University Medical College Dispensary, in which, by the way, laymen appear to hold the most prominent positions, though well-known medical men are also associated with them. We read in the circular that "the managers beg leave to state, in thus appealing to the charitably disposed, that no pains will be spared in providing suitable medical and surgical aid to the deserving poor of our great city." This is doubtless true, and well stated; but it may strike the reader as somewhat odd, at this particular epoch in the crusade against indiscriminate charity, that not a word is said as to whether the dispensary authorities refuse advice and medicine to improper subjects. Possibly there was an unintentional oversight or omission in the case, and we therefore call attention to it, since it is but just to several of our worthy institutions that the public should know such a surveillance is exercised, and improper persons are rejected, while small charges are made for medicine, sufficient to defray its actual cost. But it is also difficult to realize that such an institution has any claims upon the profession or the public in its particular situation, where there are a number of excellent dispensaries, capable of caring for all who may attend them; while one in particular, only across the street—the Out-door Department of Bellevue Hospital—is not only well equipped, but, unfortunately for the public good, dispenses its good offices without any adequate discrimination and gratis. Bad there as this abuse is, will it not be still further increased by this new institution, struggling to get upon its feet? Can it be possible that the dispensary is only charitable to the extent that it helps to sustain a college that must be supplied with patients at any cost for its clinics? Let such institutions, if this be the case, not expect too much of the profession or the public until they can establish their claims to be custodians of charitable gifts by offering certain guarantees that the worthy only shall be admitted to the benefits of their trust.

There is no difficulty in such a plan. All cases that apply can be investigated without great difficulty, and this is especially easy if the society in question co-operates with the Charity Organization Society. This plan has been inaugurated by one of the leading dispensaries in this city, and has been found to work satisfactorily to the patients, while outside physicians can have no just ground of complaint, as each dispensary physician is directed not to secure as a patient any one who can pay an ordinary fee.

News of the Week.

Report on Cholera Epidemic in Egypt.—The report of Surgeon-General Hunter to Earl Granville, on the cholera epidemic in Egypt, has been received. It is observed that he takes strong ground against the idea of its importation from India, opposes the contagiousness of the disease and the germ theory, and ridicules the sanitary cordons against cholera as practised in that country, declaring their utter inefficiency as fully demonstrated. He thinks the disease originated in Damietta, and is the result of the unsanitary condition of the Delta of the Nile.

Yellow Fever at Rio is on the increase, eighty-three cases having occurred during the three weeks ending February 16, 1884, and the consul states that "the weather is extremely hot and showery, with signs of the yellow fever becoming epidemic."

Deaths from Cholera in Calcutta.—Ten deaths from cholera are reported to have occurred at Calcutta during the week ending January 26, 1884.

Too Large a Dose.—In the article by Dr. J. H. Arton, of Winnepeg, Manitoba, page 280, the dose of morphine should have been $\frac{1}{12}$ of a grain instead of $\frac{1}{2}$ as published. Although obviously a typographical error, it is proper to prevent any chances of misunderstanding by thus calling attention to the fact.

Medical Vienna.—At the meeting of the Royal Society of Physicians, February 29th, Dr. Kowalski exhibited a patient suffering from ulcerative laryngitis, incipient phthisis, and suppurative otitis media. Tubercle bacilli were found in the discharge from the ear. Professor Albert exhibited a healthy man who in the upper cervical region had a horny excrescence which extended down the inner border of the sterno-mastoid. Professor Albert had recently seen a similar growth in a child. Professor Weinlechner had seen several such cases in children. Dr. Maydl reported three cases of colotomy. Two were cases of cancer of the rectum, one was a case of entero-stenosis from the pressure of a non-malignant tumor. The operations were successful. Dr. Weichselbaum read a very important communication, in which he stated that he had discovered tubercle bacilli in the blood of acute miliary tuberculosis. They were not numerous, and care had to be exercised in order to find them, yet they undoubtedly existed. The discovery furnishes a new criterion for diagnosticating the disease.

Dr. Zemann called attention to the fact that Dr. Paltauf had previously found the bacilli in the blood of cases of basilar meningitis. Baumgarten had also found bacilli in the blood of animals.

Dr. Kowalski reported some experiments in which he had caused tuberculosis in hens by feeding them with tuberculous matter.

MEDICAL PARIS.—At the meeting of the Académie de Médecine, March 4th, M. Charpentier read a paper upon the value of sulphate of copper in obstetrical practice. This substance was, he said, an efficient antiseptic, and it had hæmostatic and astringent properties. It was cheap, and not offensive in odor or dangerous. M. Charpentier used the one per cent. solution.

THE CENTRAL COLLEGE OF PHYSICIANS AND SURGEONS held its annual commencement on February 29th, graduating a class of twelve.

FIFTEEN HUNDRED NEW DOCTORS have so far been created this spring, with some fifty colleges yet to hear from.

THE DRUGGISTS' PROTECTIVE UNION.—We have received a latter from Mr. Justin Wohlfarth, of this city, in which he states that we have misconceived the object of the Druggists' Protective Union. This is, he says, simply to have patent medicines sold by druggists only and sold at full price. We gladly make this correction, but must confess that the objects of the Union have been greatly misconceived both by the public and by some of the druggists themselves. We have been told by prominent druggists that the Union intends to keep up the prices of proprietary mixtures as well as patent medicines. We feel no lack of sympathy for the druggists in their efforts at reform, but experience has demonstrated the futility of attempting by artificial methods to keep up prices or limit competition.

RECEPTION AT THE NEW YORK POST-GRADUATE SCHOOL.—The New York Post-Graduate School tendered a reception to the more prominent members of the medical profession of the city, on Friday evening, March 21st. There were about one hundred and fifty gentlemen present. The whole building was thrown open and the guests were shown the various facilities offered for special instruction, and for dispensary and hospital treatment. The dead-house, the histological and pathological laboratory, the orthopœdic and photographing room, the anatomical, neurological, and laryngological rooms attracted especial attention. There were also a number of rooms handsomely fitted up for private patients. A supper was served in the amphitheatre. No formal speeches were made, but the College received many expressions of congratulation at its prosperity.

NITRIC ACID IN BOGUS BUTTER.—The Committee on Public Health of the New York Assembly have made their report on the bogus-butter industry. They say: "The secret of rendering and preparing the lards and fats is beyond all question the use of nitric acid or other chemicals, which destroy the natural smell, render the article more insoluble and indigestible, and serve as an agent to prevent decomposition or putrefaction. But nitric acid is a poison. While not averring that oleomargarine is necessarily always unwholesome, the Committee believe that it is likely to be so, and to a large extent would necessarily be injurious if used by children or persons in delicate health, and is not in any sense, or can be, a wholesome substitute for pure and natural butter." They recommend the total prohibition of its manufacture as the only adequate remedy, and as the laws requiring its sale only under its real name have confessedly failed to have any effect, this seems to be the only way to put a stop to the evil.

"THE NEW CODE SENTIMENT is fast gaining ground in Georgia," so writes a correspondent from Macon.

NOT FOOT-AND-MOUTH DISEASE.—The veterinary surgeons who have made an investigation in and near Neosho Falls, Kan., now say that the foot-and-mouth disease does not exist there. They agree in the statement that the disease which prevails is not contagious, and one of them has come to the conclusion that it was caused by wild rye full of ergot, which the cattle had eaten. The Kansas Legislature has passed a bill accepting the provisions of any national law concerning such diseases which Congress may enact.

THE MARYLAND BOARD OF HEALTH.—The Governor of Maryland has expressed the opinion to the Legislature that the State Board of Health has not produced results worth the money expended on it, suggesting that it might as well be done away with.

WORKING OF THE MEDICAL REGISTRATION LAW IN PENNSYLVANIA.—In 1881 the medical profession of Pennsylvania secured the passage of a law compelling the registration of all medical practitioners. Last summer the Clearfield County Medical Society brought suit against a quack who had recently been discharged from the Western Penitentiary, and who had registered as having been in practice fourteen years. He was indicted on three counts: first, practising without a diploma; second, practising medicine and surgery without registration; third, making affidavit to a false statement. He was acquitted on the first two, but convicted on the last.

THE MEDICAL JURISPRUDENCE SOCIETY, of Philadelphia, is the name of a new organization there. Dr. S. D. Gross has been elected President, George W. Biddle, Esq., and Dr. John J. Reese, Vice-Presidents, Dr. Henry Leffmann, Secretary, and Hampton L. Carson, Esq., Treasurer. The Society now numbers about sixty members. It will hold stated meetings on the second Tuesday of each month.

A CAT AND A DOLL SPREADING DIPHTHERIA.—A good deal of prominence was given last fall, says the *Sanitary Engineer*, in the papers to the occurrence of diphtheria in a family in Amsterdam, N. Y. Two children died at intervals of several months, and a third was taken sick. The Board of Health appointed a committee to investigate, which examined the house and its surroundings, and obtained a statement from the attending physician, They have recently made their report, finding that there were no bad conditions existing in or about the house sufficient to explain the appearance of the disease, and they conclude that it came from a cat which was fondled by the child which first fell ill. This cat was found at the time to have a swollen throat and to be suffering from a discharge from the mouth and nostrils. It died a few days afterward. Three days after the death of the cat the child fell sick with malignant diphtheria and died in about a week. During its illness it played with a doll which was afterward given to a younger child, as it was supposed to have been properly fumigated with sulphur-fumes. This child, shortly after being allowed to play

with the doll, also fell ill of diphtheria and died. The third child also played with the doll and fell ill, but recovered. The Board of Health, therefore, traces the reappearance of the disease in the family after the death of the first child to the doll.

THE DECLINE OF ANATOMICAL STUDY IN CALIFORNIA.—A cheerful practice, says *Life*, is undermining the cemeteries of San Francisco. The price of cadavers having advanced steadily for four years, the medical colleges found a scarcity of good reliable subjects. The Professors therefore clubbed together and hired a venal sexton to make a midnight raid upon the graveyards lining San Francisco's favorite drive, and anticipate the day of reckoning for a small consideration. Things ran smoothly until last month, when an able-bodied savant was buried. A burst of thunder sound startled the citizens the following night; there was a patter of buttons and coffin-nails upon roofs far and wide, and the sexton's wife awoke next morning to find herself a widow. It seems that the savant, a doctor himself, had directed a quantity of dynamite and fulminating silver to be interred with him, and the unsuspecting caterer to the college was thus trapped. The simple ingenuity and effectiveness of the invention seems to have tickled the San Franciscans, and the cemeteries are now being honeycombed with torpedoes and blasting-powder, fuses and percussion-caps to such an extent that the science of anatomy is practically brought to an end.

THE MOVEMENT TO ASSIST DR. FORBES.—The friends of Dr. William S. Forbes, who was recently acquitted of a charge of complicity in grave-robbing, have already raised a considerable sum of money to reimburse him for the large amount spent in legal and other necessary expenses. The committee appeals to the profession to support, in a general manner, a movement so laudable as that of sustaining a professional brother against adverse circumstances. In its address to the profession the committee states that, independently of the personal annoyance and the professional damage sustained, Dr. Forbes was compelled to incur, in defending his character, expenses amounting to nearly four thousand dollars. As the suit was instituted while he was acting in the interest and service of a public institution, and of the profession in general, it seems unfair that he should be compelled to bear this burden alone. It is to be hoped that a very general subscription, of even small amounts, will testify to the feelings of the profession in this matter, as the wish is to show the emphatic sympathy of Dr. Forbes' professional friends. Contributions may be sent to either Dr. D. Hayes Agnew, Dr. Richard J. Levis, or Dr. J. William White.

A NEW NATIONAL BOARD OF HEALTH.—Mr. Pettibone, M.C., has introduced into the House a bill entitled "A Bill to Protect the Public Health" (H. R. 5,603), of which the first section reads as follows: "That the Surgeon-General of the Army of the United States, the Surgeon-General of the United States Navy, and the Supervising Surgeon-General of the Marine Hospital Service shall hereafter constitute the United States Board of Health. Such Board shall have full power to make such regulations as may be necessary for the government of the quarantine service of the United States and the protection of the public health; and all the power and authority now provided by law for the control, management, and regulation of the public health of the United States shall be, and the same are hereby, vested in said United States Board of Health." The bill further provides that the consular officers shall send in reports of matters affecting public health, that the Navy Medical Department shall institute needed sanitary investigations, and that the Marine Hospital Service shall have charge of the quarantine service.

A TRIBUTE TO TEMPERANCE AND PEDESTRIANISM.—Dr. Richardson and Dr. Norman Kerr, of London, are forming a committee with a view of raising one thousand pounds as a testimonial to Weston, the pedestrian, as a substantial recognition of the extraordinary pluck and endurance exhibited by him in his recent five thousand mile walk.

A CURIOUS CORRECTION.—Dr. Squibb, in his last *Ephemeris*, corrects in a straightforward and commendable manner his misstatement as to the attendance at the New York County Society. He publishes also a letter from the late President, Dr. Webster, in which the misstatement referred to is criticized in somewhat strong language. Having done his duty so far, Dr. Squibb turns about and preaches a curious homily upon the inutility of using "harsh and affronting language," and upon the utility of politeness. What the *Ephemeris* says is true, but the occasion for saying it is a remarkable one. Dr. Squibb published an item, which he should not have published, not only because it was false (which he did not know), but because it was malicious. Dr. Squibb knew perfectly well that his item would be eagerly copied and quoted; he knew it would injure an old and honorable Society. When the President rebukes him with natural, though perhaps unnecessary vehemence, he turns and reads him a lecture upon good conduct. Dr. Squibb seems to think that when a man is struck he should continue to be suave and polite.

MEDICAL BERLIN.—At the meeting of the Berlin Medical Society, February 13th, Dr. G. Siegmund read the history of a case of chyluria in a man of forty-five. The filaria was not present in this case, and Siegmund did not believe in it as a cause of chyluria. The Society devoted its whole session to a discussion of the disease.

Berlin medical circles are much pleased over the fact that Professor Frerichs has been raised to the order of nobility. This is the fourth physician who has received lately the honor, the others being von Langenbeck, Ranke, and Lauer.

At a meeting of the Therapeutical Society, March 4th, Dr. Miller read a paper on the "Fermentations in the Human Mouth and their Relation to Dental Caries." He said that fermentations develop acids, acids attack the teeth, then micro-organisms finish the process. He gave the following table:

	Suspending acid ferment.	Destroying acid ferment.
Corrosive sublimate	1 to 500,000	1 to 100,000
Permanganate of potas	1 to 2,000	1 to 1,000
Carbolic acid	1 to 1,000	1 to 500
Salicylic acid	1 to 125	1 to 75

THE SIMS MEMORIAL FUND.

To the Medical Profession and Others throughout the World:

The great achievements of Dr. J. Marion Sims call for some more lasting testimonial than obituaries and eulogies. To him medical science is indebted for much brilliant and original work, especially in gynecological surgery. Those who have been benefited by his teachings and new operations, and such as have had the direct advantage of his personal skill are among the first to recognize and acknowledge this debt.

To him is due the honor of giving the first strong impulse to the study of gynecological surgery in America.

It is believed that the medical profession everywhere, the vast number of women who owe their relief from suffering directly to him, and those who realize the benefits he first made possible, will gladly unite thus to honor the man through whose original and inventive genius such blessings have been conferred upon humanity.

At the suggestion of many friends, therefore, the subjoined committee has been organized, and it is proposed that a suitable monument be erected to his memory in the city of New York.

To this end the active co-operation of the medical profession and the many other friends of Dr. Sims throughout the world is respectfully solicited. Contributions of one dollar and upward may be forwarded to the journal which has been constituted the treasury of this fund—THE MEDICAL RECORD, New York.

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Reports of Societies.

THE PRACTITIONERS' SOCIETY OF NEW YORK.

Stated Meeting, February 1, 1884.

ROBERT F. WEIR, M.D., PRESIDENT, IN THE CHAIR.

DR. ROBERT F. WEIR read a paper (see p. 337) entitled

THE TREATMENT OF RUPTURE OF THE BLADDER BY PELVIC DRAINAGE.

The paper being open for discussion,

DR. WM. T. BULL said that he felt sure that all surgeons who had had experience in these cases would feel obliged to Dr. Weir for calling attention to the points which he did.

The speaker thought that one might dwell more upon the

DIFFICULTY OF MAKING A DIAGNOSIS,

especially in hospital cases. He was reminded of a case which he met several years ago, of a man brought to the hospital with a history simply that he could not pass his water. A catheter was introduced without meeting with any obstruction, and a very small amount of bloody urine was withdrawn. The patient at the time was in a kind of collapse. After a time a catheter was again introduced, and another small amount of bloody urine obtained. An aspirator needle was then introduced, and quite a quantity of bloody urine was withdrawn, apparently from the bladder. The aspirator needle was thought to enter the bladder, although the catheter and needle could not be made to meet. In fine, it was very difficult to make any diagnosis. The patient died the next day, and it was found that the fundus of the bladder was ruptured, and that a great quantity of blood and urine was external to the peritoneal membrane.

Another point in reference to diagnosis, which Dr. Weir mentioned, he did not think was always a positive one, viz., passing a catheter into the bladder and finding that very little urine escaped; then passing it a little farther and finding a great flow of fluid, this latter coming from the peritoneum. The speaker recollected a case that occurred in Bellevue Hospital, where the man was admitted without any history, and was supposed to have peritonitis. Urine was drawn, it was supposed from the bladder, but it really came from the peritoneum. The only thing that excited remark, was the very great quantity of urine.

He believed that if one felt confidence in the safety of

EXPLORATORY INCISIONS,

they would be resorted to. He himself would certainly employ them if indicated.

DR. GEORGE F. SHRADY remarked that Dr. Weir's case furnished a valuable point in diagnosis. He thought, however, that the palpation and percussion over the abdomen furnished more important diagnostic signs. In fact, it was hard to understand how dulness on percussion could exist after the bladder had been emptied of its urine by catheter or aspirator without its indicating some extra-peritoneal extravasation.

DR. WEIR said that in one reported case of rupture, dulness existed, and there was a tumor; but these disappeared under the use of the catheter.

DR. BULL asked what would be the effect of

SEWING THE BLADDER WOUND

into the peritoneal wound in case of intra-peritoneal rupture.

DR. WEIR said that in intra-peritoneal rupture of the bladder he would do laparotomy, and close up the bladder wound with sutures. In extra-peritoneal rupture he would not attempt to close the wound.

DR. A. A. SMITH read the histories of two cases illustrating

POINTS IN THE DIAGNOSIS OF THORACIC ANEURISM.

The history of the first case was as follows: M. F——, aged thirty-four, United States, seamstress, was admitted to Bellevue Hospital January 15, 1884. The family history was negative. The patient herself had been well until over two months ago, when she began to suffer from dyspnœa, hoarse cough, and pain in the left chest.

On admission the patient was intensely cyanosed; was in cold perspiration; pulse rapid and feeble; respirations were diminished in frequency, were very much labored, and were noisy or stridulous in character. The voice was wholly unaffected, but her cough was hoarse and husky. The face was swollen and congested, and the countenance presented a startled and anxious expression. Her suffering was intense, and she was unable to lie in the horizontal position. As the acuteness of the symptoms began to pass off, she became drowsy, but tried in vain to obtain refreshing sleep. The paroxysm lasted about fifteen minutes after her admission to the ward. During the paroxysm she was given Magendie's sol. morph., ℥ viij., hypodermically. This relieved her greatly.

Physical examination: Consolidation of left apex, and a slight pleurisy with effusion on the left side. This pleurisy probably occurred about two weeks ago, as per previous history. There is slight pulsation on the left side, at about the junction of the second rib with the sternum; and abnormal transmission of heart sounds along the trachea just below the larynx.

Diagnosis: An aneurism of the aorta (probably involving, the termination of the transverse and the beginning of the descending portions of the arch), making a pressure upon the trachea and left primary bronchus. There is not sufficient evidence of pressure on the recurrent laryngeal nerve. A double murmur was found over upper sternal region. The respiratory murmur was considerably weaker over the left side than on the right.

January 16th.—The patient passed a quiet night. This morning, on being moved, she had another paroxysm, similar in every way to that of yesterday, but rather more severe, and lasting about three-quarters of an hour. She was given Magendie's sol. morph., ℥ vij., hypodermically. Also cupric sulphate, gr. x., and zinc sulphate, gr. xx., per os. These latter were followed by free emesis, and she seemed considerably relieved. The patient says that the paroxysm of yesterday was the first one of the kind she had had. During these paroxysms, the obstruction seems to be in the larynx, and from their nature and the absence of any affection of the voice they are unquestionably due to spasm of the glottis. In the intervals between the paroxysms the patient has the same hoarse cough, and her respiration is the same in character as during these, the difference being only in degree.

January 19th.—Patient has had four paroxysms since the last entry. All of these have occurred in the evening, or during the night, and have been similar to the first, excepting that they seem to be growing more severe and last a longer time. The expiration and inspiration during the paroxysm seem to be almost equally labored and difficult. During one of the most severe paroxysms, which occurred last night, she became for the time being delirious, and threw herself about the bed in the most frantic manner. The paroxysms come on very suddenly, and are preceded, as a rule, by dry retching. During the paroxysms her pulse is feeble, and at times almost imperceptible, and hence Hoffman's anodyne, ℥ xxv., hypodermically, was given her, and she seemed much relieved by this. If the stethoscope is applied to the larynx during a paroxysm, the difficulty in breathing, the stridor, seems to be located there. Oxygen by inhalation has also been used, and seemingly with good effects.

Treatment: Potass. iodidi, gr. x. t.i.d.; whiskey,

℥ ss. q. 4 h.; mist. hydrocyan., ʒ ij. q. 4 h. During the paroxysms: Mag. sol. morph., ♏ xij.–xv.; Hoffman's anodyne, ♏ xx., hypodermically; oxygen by inhalation; sponges wrung out in hot H_2O.

January 22d.—The paroxysms for the last four days have occurred daily, lasting ten to twenty minutes. The intervals between the paroxysms are growing shorter, and the duration of the paroxysms is also less than upon her admission, although this may be due to the treatment that she receives.

January 24th.—The paroxysms have been gradually growing more frequent during the last two days. Throughout the day yesterday they occurred at intervals of about two hours, and the average duration of each was somewhat longer.

The patient has been taking but little nourishment, and has been failing rapidly. During the paroxysms, oxygen has been administered, and has relieved the cyanosis very much. This morning the paroxysms became still more frequent, and began to follow each other with great rapidity, scarcely an appreciable interval elapsing between them. Her expiration seemed to be more difficult, while inspiration was much less labored. The slightest movement, or even word, would seem sufficient to inaugurate a new attack. The attacks of dyspnœa have been accompanied by great feebleness of the circulation, at times the pulse being almost inappreciable.

At about 1 P.M. to-day she became very pale; she refused to take oxygen, became restless and partly unconscious, her pulse being very feeble and rapid. She remained in this condition for some time, then suddenly commenced vomiting blood (dark-colored) in large quantities, and soon died.

Autopsy.—Right lung normal. Left lung partially collapsed, and containing very little air. Left primary bronchus flattened by the pressure of the aneurism, and the lumen considerably occluded. The heart slightly enlarged by simple hypertrophy with no valvular lesions. At about the junction of the transverse with the descending portions of the arch of the aorta was found a saccular dilatation of the artery, partially surrounding the œsophagus, which had ruptured into the œsophagus and into the left primary bronchus. It was the size of a small fist, and had caused pressure npon the left primary bronchus, producing flattening of it, and upon the left pneumogastric nerve. It was thought also that there was pressure upon the left recurrent laryngeal nerve. There was slight erosion of two or three vertebræ. The stomach was found to be greatly distended by large clots of blood, which were of an exceedingly dark color. The other organs were normal.

Dr. Smith remarked, in commenting upon the case, that the point of interest during lifetime was whether the disease was an aneurism or a mediastinal tumor. One visiting physician had pronounced in favor of the latter.

Dr. Smith related the history of a

SECOND CASE,

in which solidification of the lung accompanied the aneurism.

August H——, a German, by occupation a bookbinder, was admitted to Bellevue Hospital December 7th. Family history good. Is not intemperate, but drinks beer occasionally. Two years previous to admission he had a sore on his penis, followed by a bubo, but has never had secondary or tertiary manifestations, so far as could be ascertained. He has had a cough for three months, and for the same length of time has had occasionally attacks of diarrhœa with sanguineous stools. About ten days before admission he was seized, after exposure to cold and wet in a cellar, with a chill, pain in left side, a severe cough, some fever, shortness of breath, and great debility. He was confined to bed. Five days later the sputa was tinged with blood.

On admission he was still suffering from cough, dyspnœa, no pain, however, debility, and profuse perspirations. Physical examination revealed a diminished expansive movement on the left side. Vocal fremitus was *absent* on the left side, except near the sternum and spine and in the infra-spinous fossa.

Dulness (almost flatness) over the left side in front as low as the fifth interspace; behind as low as the inferior angle of the scapula; below this there is dulness, but not so marked. There is bronchial breathing and bronchophony in left side as low as the fifth interspace, diminishing from above downward. Behind there is bronchial breathing as low as the inferior angle of scapula; below this the respiratory murmur is almost lost. Since coming into the hospital the patient has had attacks of cyanosis quite marked, and assumes the half-lying posture almost constantly.

The heart is normal in size, but there is a mitral systolic murmur heard.

On the second day after admission the sputa was decidedly pneumonic; the temperature was 102°. On the third day the temperature became normal, the rusty sputa ceased, and the patient seemed much better, although the physical signs did not change. On the fourth day, for the first time, he complained of some pain in the left side when he attempted to lie on that side. The pain was located in the region of the nipple.

His condition was so much better on the 18th (eleven days after admission) that he asked to be discharged. His discharge card came so late in the day he was permitted to remain until the next day. At midnight of the 18th he sat up in bed suddenly, coughed violently, and the blood gushed in torrents from his mouth. He died in a few minutes.

Autopsy.—Just on the anterior surface of the descending arch of the aorta is an aneurism pressing forward on the posterior wall of the left bronchus, and opening into it by a semilunar valve-like opening. The aneurism was as large as an English walnut. Lungs: Left lung showed red and gray hepatization over the whole of it. Pleuritic adhesions quite marked. The upper lobe was more markedly consolidated than the lower.

The histories of these two cases were somewhat similar. Some interesting questions suggest themselves. Had the pressure on the left primary bronchus anything to do with the development of pneumonic consolidation in the upper lobes? Might the pressure on the pneumogastric have had anything to do with the development of consolidation? In one case there was such pressure, as shown at the autopsy, and in the other the situation of the aneurism was such as to produce at least slight pressure on the pneumogastric. Or is the consolidation to be explained merely by a coincidence? Aside from pressure on pneumogastric, or bronchus, might the pressure on the lung tissue itself have resulted in pneumonia? If pneumonia is *always* a constitutional disease, the only explanation in these cases would seem to be coincidence.

In the discussion of these cases

Dr. Beverley Robinson thought that the lung solidification was probably a coincidence. He had generally seen collapse of the lung tissue, but not solidification. He referred to the fact that spasm of the glottis is sometimes produced by pressure on the trunk of the vagus.

Tyndall on Evolution.—Professor Tyndall says on this subject: "If asked whether science has solved, or is in our day likely to solve, the problem of the universe, I must shake my head in doubt. Behind, above, and around us, the real mystery of the universe lies unsolved, and, as far as we are concerned, is incapable of solution. The problem of the connection of the body and the soul is as insoluble in its modern form as it was in the prescientific ages. There ought to be a clear distinction made between science in the state of hypothesis and science in the state of fact, and inasmuch as it is still in its hypothetical stage, the ban of exclusion ought to fall upon the theory of evolution."

MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.

Stated Meeting, March 24, 1884.

ANDREW H. SMITH, M.D., VICE-PRESIDENT, IN THE CHAIR.

BLINDNESS FROM THROMBOSIS OF THE RETINAL BLOOD-VESSELS IN FACIAL ERYSIPELAS.

DR. H. KNAPP read a paper on the above subject in which he first referred to the literature of the subject, and said that blindness from erysipelas was an infrequent occurrence, yet more frequent than text-books would lead us to conclude.

Schultze, in "Ziemssen's Cyclopædia," describes the condition in a few lines, and says there is swelling of the lids with redness, protrusion, and immobility of the eyeball, haziness of the cornea, ulceration of the cornea from exposure, then more or less sudden blindness, not rare incomplete amaurosis, and in the majority of cases permanent blindness; in only rare cases restitution. Stille's reference, in the "International Encyclopedia," is still more meagre.

The most complete article on the subject was published by Schwendt in 1882, who had collected thirteen cases, to which Dr. Knapp was able to add twelve. The condition of immobility of the eyeball probably does not occur without orbital cellulitis. The blindness occurred in the inflammatory stage in some cases, in the stage of convalescence in others.

Dr. Knapp then gave a résumé of the description of the disease as it had been given by different writers, and as bearing on pathogenesis; also gave the histories of three recorded cases.

The second class of cases were those in which ophthalmoscopic observations were made in the early stages of the disease, as noted by Williams, of Boston, and other observers. In general there has been lack of ophthalmoscopic examinations during the first stage of the affection.

Dr. Knapp then gave the history of his case, which was under the care of Drs. Gulecke and Schottke, and which he had opportunity to observe with the ophthalmoscope almost from the beginning to the end. A married man, forty-one years of age, had lived in the tropics, had had syphilis with secondary and tertiary symptoms, which were aggravated when his business called him North. In March, 1883, while in New York, he had an attack of erysipelas, which began upon the nose, and spread to the pharynx, cheeks, and orbits. The erysipelas progressed, and eight days from the beginning of the attack the patient was totally blind in both eyes.

The media were perfectly clear, there was not even any opacity of the vitreous. The fundus at first was opaque, could be distinguished only by the convergence of the bood-vessels, which were tortuous, and there were also numerous *dark* hemorrhages. On the fourth day of the blindness the veins had not changed. The arteries were then bright red lines, and there was no doubt that blood had been carried into the anterior of the eye, because there was evidence of new hemorrhages, shown by *red* extravasations. The swelling subsided, mobility of the eyeballs was restored, the optic disk gradually became visible, was pale and atrophic, and the veins looked like beads. Gradually some of the blood-vessels were interrupted by white portions as thick as the calibre of the vessels themselves. These white portions in the course of weeks extended, and finally coalesced, and nearly all the vessels were converted into white lines; only a very few contained blood.

Dr. Knapp then made some general remarks concerning erysipelas, which he regarded as an infectious disease, of traumatic origin always. He then turned to the ophthalmoscopic pictures of the cases under consideration and gave his views concerning the successive steps in the morbid process, which were illustrated by large colored plates. They may be summarized as follows:

First. The blindness was produced by compression of the central retinal arteries, and subsequently thrombosis of the retinal veins, both having been directly observed with the ophthalmoscope one day after the occurrence of the rapid, almost sudden loss of sight.

Second. The ophthalmoscopic appearances observed from the beginning to the end showed no neuro-retenitis, but the successive stages of a thrombosis.

Third. The degrees of the swelling of the orbital tissue, or the establishment of collateral circulation from the choroid, permitted the return of a limited flow of blood into the retinal arteries, which, however, was impeded by the blocked veins, leading to renewed extravasations, to the thrombosis, and shrinkage of the arteries, and finally to atrophy of the optic nerve.

Fourth. Perivasculitis played no, or only an unimportant part in the pathology of the case.

Fifth. The white segments in the veins and arteries were white thrombi, and not hypertrophy of the walls of the blood-vessels.

Sixth. The thrombus was present, in all probability, also, in the orbital veins, but did not, as in other cases, extend to the central sinuses.

DR. E. G. LORING had been very much interested while listening to Dr. Knapp's paper. While he had seen atrophy of the optic nerve after erysipelas, he did not remember to have examined a case during the progress of the disease. In the cases which he had examined there had been simply an exhibition of white atrophy of the optic nerve, without any of the changes in the blood-vessels illustrated by Dr. Knapp, and there were no hemorrhages, and evidently an entirely different condition from that commonly accepted as the result of lesions occurring with and after erysipelas.

There was one case on record to which Dr. Knapp had not referred, and in which the appearance was precisely as described by him, namely, a case reported by Dr. Calkin.

With regard to the manner in which the inflammation extended, Dr. Loring thought it was by direct propagation along the walls of the vessels themselves; that it was a pure phlebitis, and he referred to two cases which favored this view—one a case of phlebitis of the neck, the other phlebitis of the leg—in which the propagation was directly related to the inflammatory process in the veins.

With reference to compression of the blood-vessels Dr. Loring thought any amount of protrusion of the eyeball might occur, and yet produce no effect whatever upon the circulation.

With regard to the condition of the vessels—that they remained of the same size in different parts—he thought was evidence of inflammation of their walls, and that the process was inflammation and hypertrophy of the walls of the vessel. That thrombi were within them he had no doubt, but the essential feature of the process he believed to be phlebitis, which arrested the current and ultimately gave the picture presented.

DR. T. R. POOLEY thought it not so easy to explain the phenomena by such complete compression of the central retinal vessels with thrombi, for if so, we should expect to have complete disappearance of both sets of vessels, arteries and veins.

In cases of blindness with atrophy of the optic nerve, due to other causes, and with the same size of the blood-vessels, it was difficult to accept this explanation, which, however, without doubt, must remain true for many other cases.

Dr. Pooley also preferred to assume that the veins ruptured, and so gave rise to the hemorrhages, rather than that the extravasations were due to diapedesis, for in diapedesis there is escape of white blood-corpuscles mostly, with only a few red ones.

DR. W. F. HOLCOMBE queried whether the essential nature of the orbital difficulty might not be a phlebitis, and not due to pressure alone. He also queried whether some of the cases might not be essentially orbital perios

titis described many years ago by Denmar as of specific origin.

Dr. Knapp, in closing the discussion, said that a certain number of the patients had syphilis, but whether it had anything to do with the condition described he was unable to say positively. The case referred to by Dr. Loring had escaped his search. He had one hesitation in accepting the view that the change affecting the vessels was due to phlebitis, and that was there was absolutely no opacity about the veins. That it was a phlebitis was decidedly apparent from the possibility of the organization of the thrombus, according to modern views. It was certainly an inflammation of the inner coat of the blood-vessels, and so far he agreed with Dr. Loring. But as to its being an inflammatory process which crept along the blood-vessels, he thought that view could not be established in this case. That it was so in other cases, for example, where it has been found to have followed the vessels into the dura mater, etc., there was no doubt.

With regard to the hemorrhages being due to diapedesis, Dr. Knapp said he thought that such extravasations were due to rupture of the vessels, until a few years ago Dr. L——, of Berlin, described retinal hemorrhages occurring in pernicious anæmia, and explained them by transudation through the coats of unhealthy vessels, and Bettman, of this country, also had demonstrated the escape of blood in quantity sufficient to constitute a hemorrhage without rupture of the coats of the vessel.

The Vice-President referred to the case of a man who had diabetes mellitus, erysipelas of the face, albumen in the urine, movable eyeballs, no exophthalmos, but sudden and total blindness a short time before his death.

Report of the Committee on Collective Investigation of Disease.

Dr. David Webster, Chairman of the Committee, reported that the histories of about fifty cases of intestinal obstruction had been sent in, many of which were very interesting, and required more time for consideration than could be devoted to them this evening. He therefore moved that when the Society adjourns, it adjourns to meet *April* 7, 1884, and that the subject of Intestinal Obstruction, to be reported by the Committee, be made the special order for the evening. Carried.

Reports of the Special Committee on "An Act to Incorporate a College of Midwifery," and "An Act to Regulate the Practice of Midwifery."

Dr. W. M. Chamberlain, Chairman of the Committee, submitted the following majority report:

To the Medical Society of the County of New York: Your Committee, having carefully considered a draft of "An Act to Incorporate a College of Midwifery," also a draft of "An Act to Regulate the Practice of Midwifery," and having heard the arguments of the promoters of these acts, are of the opinion that it is not expedient for this Society to endorse or support the said acts.

The question of the conditions under which others than registered physicians shall practise midwifery seems to be an important and difficult one, and in our opinion might properly be referred to a special committee, or to the Comitia Minora for examination and report.

Signed: W. M. Chamberlain, M.D., *Chairman.*
Edward L. Partridge, M.D.
Arthur M. Jacobus, M.D.
Chas. Carroll Lee, M.D.

Dr. A. W. Warden submitted the following minority report:

To the Medical Society of the County of New York: The undersigned, a part of your committee appointed to investigate and report to the Medical Society of the County of New York concerning two acts proposed for State legislation, presented to the Medical Society of the County of New York for approval by the promoters of the proposed "New York Maternity and School of Midwifery," reports as follows:

First. In regard to the proposed "New York Maternity and School of Midwifery," your committee recommends that the Medical Society of the County of New York *do not* endorse or commend the incorporation of such an institution, because it is not conducive to the elevation of the medical profession and the good of the community.

Second. In regard to the proposed act in relation to the practice of midwifery in the State of New York, your committee find such proposed law to be not advisable, and counsel that the Medical Society of the County of New York, in the interest of maintaining a high standard of qualification for the practice of midwifery and all branches of the profession of medicine, and in the interests of the people of the State of New York, *do not approve* any State legislation giving the right to practice midwifery, or any branch of the profession of medicine, to persons other than qualified and registered (male or female) physicians.

Signed: A. W. Warden, M.D.

On motion the reports were accepted.

Dr. Harwood moved that the minority report be adopted.

Dr. Manley moved, as an amendment, that the majority report be adopted.

After some discussion Dr. Jacobus moved that the further consideration of both reports be postponed indefinitely.

The motion was put and declared lost.

Discussion ensued and was participated in by Drs. Polk, Jacobi, Johnson, Warden, and others, and then the vote on the amendment to adopt the majority report was taken and lost by a large majority.

Discussion again ensued, and was participated in by Drs. Jacobi, Polk, Jacobus, Mundé, Cole, and others.

Dr. Spitzka moved the previous question. Carried.

The vote was then taken on the minority report and it was adopted.

Pending the consideration of the bill *now before* the Legislature, with reference to incorporating a college of midwifery, the Society adjourned.

Tetanus treated with Quinine and Chloral—Recovery.—Dr. James H. Tebbetts, of Chicago, Ill., relates the history of a child, two months old, who had pushed a carpet tack, with a leather head, up its nose. Several days later Dr. Tebbetts was called in, and found the child in tetanic convulsions. It had had trismus for two days already. The tack was found wedged against the inferior turbinated bone and was extracted, when about a drachm of sanious pus and broken-down tissue was discharged. The convulsions continued, the temperature was 106° F., and pulse 170. Eight grains of chloral hydrate and five grains of quinine were given per rectum, when the general convulsions ceased, but not the trismus. Next morning the temperature was 104°. Ordered three grains of chloral hydrate every three hours for twenty-four hours, and five grains of quinine every six hours per rectum. This last medicine was continued for three days; at the end of that time the temperature was normal and there was only a slight trismus. Dr. Tebbetts adds: "It would seem that in quinine we are to look for great assistance in these cases, and that, when given in full doses, even in children, the convulsions lessen in severity and may cease altogether. Toy-pistol tetanus, in the practice of Dr. Hosmer Johnson, has been cured by large doses of quinine; and Dr. Jones, of New Orleans, also reports recoveries of cases of tetanus after large doses of quinine. In conjunction with chloral hydrate during and after the severer paroxysms, quinine seemed to hold the disease in check until the system had recovered its tone. Cinchonism did not appear."

New Instruments.

A NEW INSTRUMENT FOR EXSECTIONS.

By JOHN A. WYETH, M.D.,
NEW YORK.

I WISH to call the attention of surgeons in this country to a most excellent and useful instrument recently brought to me from London by my friend, Dr. J. N. Oakes, of Ohio. The inventor is a Mr. Gowan, of Guy's Hospital, and the original instrument was manufactured by Moyer & Meltzer, of London. I have had it reproduced, with certain modifications, by Tiemann & Co., of New York City. For the rapid, safe, and easy division of bone it is, in my experience, unequalled by any other form of saw. I have tried it in exsections of the humerus and shoulder-joint, the elbow-joint, the hip-joint, cutting through both trochanters wtth perfect facility, the radius, the metatarsus, and the acromion process and spine of the scapula.

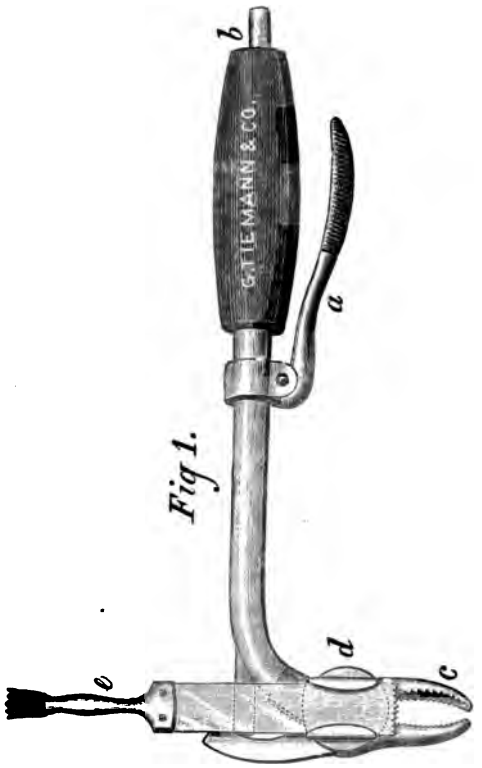


Fig. 1.

Fig. 1. represents the instrument made by Tiemann & Co., after Mr. Gowan's model. It consists of a handle about a foot long, made of metal and covered partly by vulcanized rubber. This handle is hollowed out for the passage of the steel bar *b*, which runs the entire length of the apparatus to act on the jaw of the forceps. On a portion of its inferior edge, at about its middle, cogs are cut in which the teeth of the lever *a* catch, and the degree of pressure of the jaws *c* on the bone to be held is regulated by the pressure of the fingers of the operator upon the lever *a*. The saw *e* is in shape like a chisel, and works into a shield at *d*. *Method of using:* The bone to be exsected having been exposed, with its periosteum peeled off in common with all the circumjacent tissues, the operator, holding the handle of the instrument in his left hand (the saw being entirely removed), depresses the lever *a*, draws back the bar *b*, and opens the jaws *c* wide enough to insinuate them about the bone. As soon as this is accomplished the bar *b* is pushed forward against the heel of the jaw and the lever *a* is pressed toward the handle. With the right hand slide the saw into the shield *d* down until the teeth engage against the bone. A slight oscillation of the handle of the saw with requisite pressure carries it through the bone with remarkable rapidity, and without wounding or bruising the contiguous soft tissues. The shield *d* not only rotates, but is reversible, and can be changed from one side to the other. In the modified instrument I have had constructed a narrower saw and shield, so that it may be used in exsections of small bones closely related to each other, as the metacarpal bones.

The modified *exsector* is seen in Fig. 2, and is cheaper

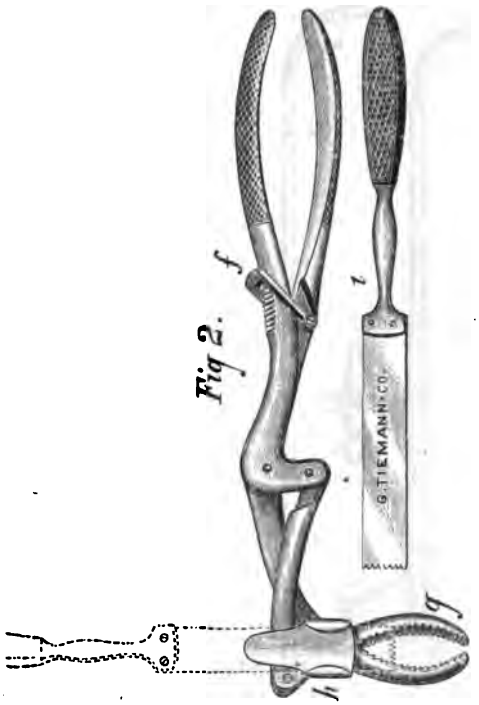


Fig 2.

as to cost and simpler as to mechanism than the preceding. The handles work with a double-jointed motion, and have a fixation-clamp, *f*, like the Russian needle-holder. By opening or closing the handles, the jaws, *g*, are separated or closed. The action of the rotating shield, *h*, and the saw, *l*, are the same. I am sure that this instrument will be of great use to the profession, and while the idea is not novel, Mr. Gowan deserves great credit for his perfection of it.

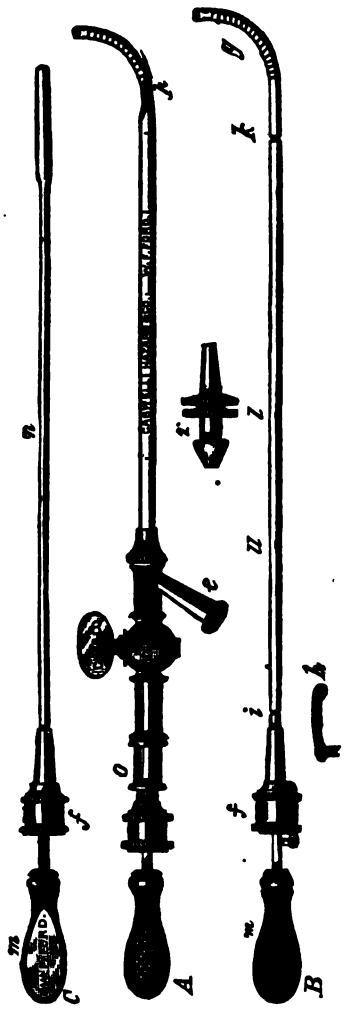
AN IMPROVED MODIFICATION OF DR. ROBERTS' TROCAR AND CANULA FOR ASPIRATING PERICARDIAL EFFUSIONS.

By BEVERLEY ROBINSON, M.D.,
NEW YORK.

THE instrument, of which a wood-cut and detailed description follows, is not *new*. It is merely, as I believe, an improvement upon the one referred to above. The additions to, or modifications of, Dr. Roberts' instrument consist: 1. In the larger side-tube *e*, added to the penetrating needle. This of itself is *not* new, since we find it *now* attached to many improved forms of aspirators. It was first used by Potain. 2. The stopcock *d*. 3. The stuffing-boxes *o* and *f*. These are also found in some improved aspirators. 4. The small spring *h*, which catches in the notches *i*, *k*, etc., while the inner tube *b* is being slowly withdrawn, and the holes *l* and *ll*, which are placed at distances exactly to correspond with the outer tube *e* when the spring is stopped by one or other of the notches first found as the handle is drawn back. These are additions which make the instrument a more accurate one than the original one by Dr. Roberts. 5. The conical opening *o*, and the thicker end of the steel blunt needle *n*, as well as the hermetically fitting anterior portion of the stuffing-box *f*, are all intended to prevent the possible entrance of air into the pericardical sac, and are, so far as I know, *new* and *useful* additions to the instrument.

With Dr. Roberts' instrument, "if the canula becomes plugged with flakes of lymph, the handle can be unscrewed, the inner portion withdrawn, and the hose attached to the end of the penetrating needle, which then acts as a large ordinary aspirating needle."

With my modification no such risk of the entrance of air into the pericardical sac is incurred, and, besides, to clean out the *penetrating* needle, by means of the steel bar, if it should have become obstructed by fibrin, or lymph, is more practicable than to *suck* back this material into the aspirating pump.



The instrument consists of three principal parts, *A*, *B*, and *C*.

A is a canula, or aspirating needle, the front part of which is an ordinary aspirating needle provided with a stopcock at *d* and a short tube, *e*, projecting from the canula at an angle of forty-five degrees and situated one-half inch in front of the stopcock. This short tube serves to connect the canula with the aspirating pump or the vacuum by means of air-tight mounts and rubber tubing

The lower extremity of the canula *A* has an opening, *o*, with a conical bore into which the stuffing-boxes *f*, *f* of the parts *B* and *C* fit closely and form an air-tight joint.

The Fig. *B* is a tube which fits closely into the canula *A*, and shuts off the air hermetically by virtue of the stuffing-box *f*. It ends in the spiral tube *g*, one inch long, made of a flat piece of steel, and is curved, forming the quarter of a circle having a radius of one-half inch. "The outer extremity of the spiral is pierced with a hole, and there are also two fenestræ just above to give exit to the fluid."

The stuffing-box of this tube is provided with a small steel spring, *h*, with a pin. *i* and *k* are small notches in the tube, into which the pin of the spring fits accurately; the two points marked *l* and *ll* are openings in the tube which correspond with the small tube *e* (of the canula *A*), in order to establish connection between the vacuum and the aspirating needle for aspiration. *m* is a metal handle checkered on one side.

Fig. *C* consists of the same metal handle *m* and the same hermetically fitting stuffing-box *f*, but is not provided with a steel spring. *n* is a steel bar or blunt needle fastened into the handle *m*. The end of this steel blunt needle is one-half millimetre thicker within three-fourths of an inch of the point.

The stuffing-boxes *f* consist of two parts screwed together, and contain in the inside a leather washer which prevents the passage of air, making the stuffing-boxes absolutely air-tight. When being used, it is essential that the checkered side of the handle *m* must be horizontal with *d* and *e*, to prevent the point *p* of the canula from piercing the spiral part, *g*, of the tube *B*.

When tube *B* is introduced into the canula *A*, the handle *m* is drawn out gently until the small spring, *h*, snaps into the notch *i* with a perceptible jerk. Then connection between the tube *e* and the canula is made by means of the opening *l*, and at the same time the spiral part of the tube *B* is concealed in the canula below the point of the canula, and the instrument is ready for use.

It is then introduced, and in order to protect the point from doing any harm in the cavity, the tube is introduced up to the handle (its full length) and the spiral part of the tube protrudes from the canula, as shown in Fig. *A*, thus covering the point; and connection with the tube *e* is made by means of the hole *ll* (see Fig. *B*).

If the canula becomes plugged up with flakes of lymph, etc., etc., in the course of the operation, the tube *b* is withdrawn.

In order to prevent the admission of air into the canula, the tube *b* is withdrawn slowly until the small steel spring snaps into the notch *k*. The stopcock is then closed, thus shutting off the air. Now the tube *b* can be withdrawn and the blunt needle *e* introduced, the stuffing-box *f* is fastened into the conical opening *o*, the stopcock opened, and the blunt needle introduced to its full length, by which operation the canula is cleared without admitting the least particle of air. "The instrument is marked on the surface in inches," like the one of Dr. Roberts, "so that it can be seen at what depth the point is situated."

DOUBLE-BLADED SAW FOR REMOVING PLASTER CASTS.[1]

By A. H. MEISENBACH, M.D.,

ST. LOUIS, MO.

In removing plaster-of-Paris casts, oftentimes a great deal of time is unnecessarily consumed, on account of the imperfection of the instruments employed.

There are various forms of shears devised for the purpose, but any one having used them well knows that there are many objections to them, such as clogging, not leverage enough to force the jaws through the plaster, or not space enough between the limb and the cast to insert the jaws advantageously. A saw has some advantages over other means, principally on account of the rapidity of its penetration; yet a single-bladed saw of ordinary construction has the disadvantages of making only one cut at a time, and not being able to be used in situations oftentimes desirable, such as the bend of the elbow, over the ankle, etc.

The saw illustrated obviates most of the above-named objections. It is constructed with double blades, parallel to each other. The blades are of the form of a Hey's saw, only larger, one cutting surface being rounded and the other square. The blades A, B are attached to the shaft D, E by screws, as shown. The shaft consists of a square part, D, and a tapering part, E. The square part is made in two halves, with a hinge, as shown at D. The blade A is attached to the stationary part of the shaft, and the blade B to the movable part of the shaft. At the end of the blades is a spring, C, which is notched so as to firmly hold the blade B in position. By having one blade movable it can be easily cleaned. The distance between the blades is $\frac{3}{8}$ of an inch. This is the best width, for it allows the strip cut out to be easily removed with a chisel or knife, which would not be

[1] Aloe Hernstein & Co., instrument makers of St. Louis, have manufactured a very good instrument for me.

the case if the strip cut out were wider. The whole length of the shaft is 6½ inches. The blades are 1¾ inch wide and 2¼ inches long. The teeth of the saw blades should be very fine, so as to insure rapidity in cutting. The mode of using it is as follows:

Cut the entire length of the cast to a depth of one-fourth or one-third of an inch, chip out the strip thus cut with a chisel or knife, and continue the operation until the entire thickness of the cast is cut through, or a portion of the cast is reached which is not thoroughly saturated with plaster, and which can easily be cut through with scissors or a knife. The cast can be removed, or if it is desired simply to make it fit more snugly, a bandage can be put around it, drawing the cut surfaces together, and thus making it fit closely again until the time for removing it entirely. All casts loosen on account of reduction of the swelling, and also on account of atrophy of the soft parts from pressure and non-use, and the cast must almost always be retightened before the time has expired for its removal. This operation is much simplified, and there is much time saved by the employment of the instrument illustrated.

2214 S. Broadway.

Army and Navy News.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, United States Army, from March 16, 1884, to March 22, 1884.

Bache, Dallas, Major and Surgeon. Leave of absence still further extended seven days. S. O. 50, par. 1, Headquarters Department of the East, March 14, 1884.

Matthews, Washington, Captain and Assistant Surgeon. To be relieved from duty in the Department of Missouri, and to report to the Surgeon General of the Army for duty in his office. S. O. 62, par. 12, A. G. O., March 15, 1884.

Black, Charles S., First Lieutenant and Assistant Surgeon. Assigned to duty at Fort Concho, Texas. S. O. 30, par. 6. Headquarters Department of Texas, March 10, 1884.

Gibson, R. J., First Lieutenant and Assistant Surgeon. Relieved from duty at Fort Hays, Kans., and ordered to Fort Wingate, N. M., for duty. S. O. 58, par. 3, Headquarters Department of Missouri, March 18, 1884.

Crosby, Wm. D., First Lieutenant and Assistant Surgeon. Relieved from duty at Fort Huachuca, A. T., and ordered to Fort McDowell, A. T., for duty. S. O. 20, par. 1, Headquarters Department of Arizona, March 15, 1884.

Edie, Guy L., First Lieutenant and Assistant Surgeon. Assigned to duty at Fort McIntosh, Texas.

Robertson, Reuben L., First Lieutenant and Assistant Surgeon. Assigned to duty at Fort Ringgold, Tex. S. O. 33, par. 3 and 4, Headquarters of Department Texas, March 17, 1884.

Official List of Changes in the Medical Corps of the Navy, during the week ending March 22, 1884.

Streets, T. H., Passed Assistant Surgeon. From Museum of Hygiene, Washington, for duty in the Coast Survey service.

Hall, C. H. H., Passed Assistant Surgeon. From the Naval Academy to the Museum of Hygiene.

Stewart, Henry, Surgeon. Ordered before the Retiring Board.

Medical Items.

Contagious Diseases—Weekly Statement.—Report of cases and deaths from contagious diseases reported to the Sanitary Bureau, Health Department, for the week ending March 22, 1884:

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Cases.								
March 15, 1884.....	9	10	78	3	54	45	0	0
March 22, 1884.....	3	7	93	5	57	31	0	0
Deaths.								
March 15, 1884.....	0	5	6	3	8	20	0	0
March 22, 1884.....	3	3	22	5	8	15	0	0

Another Case of Supernumerary Testicle.—Dr. H. S. Hutchinson, of Lewisburg, Pa., writes: "Being in Kingston last fall, one night I happened into the bar-room of the hotel where I was stopping, just as those present were making a wager that a certain man, Wm. F——, also present, could not show three testicles. The wager being made he exposed his scrotum, when I was requested to examine it. I did so and found to my surprise three distinct testicles, the third being in the left side of the scrotum, behind and a little above the other, and about the size of an English walnut. The same sensations he said were produced by pressure as in the other testicles. The spermatic cord seemed to join with that of the other before entering the inguinal canal. The man had more than ordinary sexual power.

A New Antagonist to Alcohol.—The kola nut of Guinea, or garu nut of Soudan, the fruit of the sterculia acuminata, cola acuminata of Daniell, has recently assumed a new importance by its remarkable property of antagonizing the effects of alcohol. It has long been known that the kola nut contains caffeine, to which may be attributed the lessened desire for sleep and sense of physical well-being caused by the consumption of it; for which reasons it has long been extensively and highly valued throughout a large portion of Africa. Unlike the coffee bean, however, it contains no tannin. It has recently been discovered that when chewed, it antagonizes the effects of alcohol, and constant use of it is said to dissipate the desire, even in old drinkers. Whether it is superior to the aromatic spirits of ammonia for the treatment of an "acute drunk" is not yet definitely known. The nuts are much more available for constant use, however, than any liquid, and if the claims put forward be true, the "diner-out," by taking a few of them along with him, need not be disturbed by thoughts of the next morning's headache.

The Regulation of Prostitution.—M. E. De Laveleye, in a letter to the *Pall Mall Gazette*, gives the following account of what has been done of late with regard to the regulation of prostitution. He says: "The Municipal Council of Paris and the General Council of the Seine have both alike passed a resolution absolutely in condemnation of the official recognition of debauchery. The Governments of Italy and Belgium have appointed Commissions of Inquiry upon the question. At Colmar, in Alsace, the odious legislation has been abolished, and the military and medical authorities, at first opposed to the abolition, have now congratulated the mayor, M. Schlumberger, on the amelioration which has taken place in the health of the troops. The maladies in question have been doubled in twelve years at Copenhagen since the introduction of the regulation system. This was proved by the statistics communicated to the Hague Congress by Dr.

Giersing. The same maladies had, he proved, diminished in the towns not subjected to the regulations. In Finland the system is applied with an unheard of severity. The entire population, men, women, and children, being periodically subjected to the odious examination; yet in Finland the physical scourge is extending its ravages right and left. In Italy, Belgium, and Holland specialist doctors of the most distinguished character proclaim loudly the inefficiency of the system, while in Spain a group of the most eminent men, with Castelar at their head, have given their adhesion to our principles. There is a proposal in Holland to consider the possibility of some international law to suppress the white slave trade. Your House of Lords, I believe, has in hand something of the same kind."

MERCURY IN DIPHTHERIA.—Dr. E. Snyder, of St. Paul, Minn., writes us urging the claims of mercury in diphtheria. The practitioner who knows how to use intelligently mercury, tincture of iron, and inhalations of slacking lime, need not, he thinks, be afraid of diphtheria. Dr. Snyder gives an initial dose of calomel and soda. He then applies the oleate of mercury to the throat externally.

ANTISEPTIC MEASURES IN OBSTETRIC PRACTICE CARRIED TOO FAR.—Dr. D. W. Phillips, of Vallejo, Cal., writes: "One of my friends, who has become a thorough convert to the Listerian system, has recently been extending his practice so as not to be charged 'with a laxity of caution closely bordering upon criminality.' Owning a large ranche, he supplements his private practice with veterinary duties. He injects a four per cent. solution of carbolic acid into the vagina of his cows before labor is expected, for several days, and also for several days after labor. Trying the same process on a favorite mare with foal, he and his syringe were kicked into an adjoining field, happily without serious injury."

A DIFFERENCE IN OPINION.—Says *The Lancet:* "It may be said with safety and literal truth that drugs never played a more important part than they do now, that they never did so much good and so little harm as in the present practice of medicine. Let one month be imagined in London without chloroform, opium, atropine, quinine, iron, salicin and its compounds, carbolic acid, iodide of potassium, ammonia, without common laxatives or cod-liver oil, and suffering and death would be immensely increased." Says Dr. Oliver Wendell Holmes: "I firmly believe that if all the drugs in the pharmacopœia were thrown into the sea, it would be better for mankind, and worse for the fishes."

LOCAL PROTECTIVE UNION FOR PHARMACISTS.—A call has been issued for a meeting of pharmacists in order to discuss the practicability of organizing a local pharmaceutical society. The object of the proposed society will be to protect the druggist and the public against the encroachment of irresponsible traders. Many representative men are engaged in the movement.

METRORRHAGIC FLOW FROM THE USE OF SALICYLATE OF SODA.—Dr. John D. Mulhane, of Steubenville, O., writes: "Referring to your article on 'The Action of Salicylate of Soda on the Uterus' (MEDICAL RECORD, January 19th, page 69), I had a colored lady, four months pregnant, to whom I gave large and frequent doses of the above drug for arthritic rheumatism. After four days she complained of a mucous and bloody discharge, to account for which I was at a loss, till I saw above article. The drug was at once stopped. The discharge ceased, which at one time had the appearance of true menstrual flow. I have every reason to think it was due to the soda."

A NEW SCHOOL OF PHARMACY.—At the annual meeting of the King's County Pharmaceutical Society, held in Brooklyn, February 13th, a committee was appointed to confer with the authorities of the Long Island College Hospital in reference to the establishment of a school of pharmacy at that institution.

A CASE OF DISLOCATION OF THE STAPES.—Dr. Geo. O. Williams, of Greene, N. Y., sends us the history of a pension claimant who incurred deafness suddenly in the right ear after the discharge of cannon. Examination disclosed the following: Right ear, hearing $\frac{0}{8}$. No discharge. Tympanum rather more translucent than normal, and appeared flabby. A complete outline of the stapes was clearly distinguishable, lying flat against the membrane which covered it loosely, exactly as if a smooth silk handkerchief was laid over an ordinary stirrup. The articulation between the head of the stapes and processus longus was interrupted as if from dislocation, the head being thrown outward.

A FASTING ATAXIC.—It appears from a statement, which we owe to the courtesy of Mr. Charles Carey, of Bromsgrove, says the *British Medical Journal*, that there is, in the workhouse of that union, a man whose power of sustaining life for a considerable period without food is very remarkable. The man is named Hunt, and he is suffering from locomotor ataxy, with marked brain-symptoms, and complete loss of vision. He said that he was "ordered not to eat anything by his Heavenly Father," and for thirty-five days he took no food, with the exception of a small piece of toast on the sixth day of his fast, and drank no liquid except water. During this period he did not show any signs of unusual weakness, he was able to sit up in bed, his movements were quick and prompt, his voice loud, and his manner abrupt; he has been invalided for about three years, and is unable to stand. Lately he has modified the rigor of his fast, and has consented to take milk and eggs.

PERSISTENT COUGH DUE TO A NEEDLE IN THE CHEST-WALL.—Dr. James H. Tebbetts, of Chicago, sends us the history of a young man, who had suffered for two weeks from a persistent cough. On examining the chest, he found on the right side at the posterior portion of the axillary space between the sixth and seventh ribs a black thread, and by pulling upon it he extracted a bent and rusty needle. The cough ceased. Dr. T. does not say whether it penetrated the pleural cavity.

A CASE OF TRANSPOSITION OF VISCERA.—Dr. H. Illoway, of Cincinnati, O., sends us an interesting and very complete description of a case of transposition of viscera in an otherwise healthy Austrian, aged forty-five. Dr. Illoway asks whether the case would be of sufficient interest to be shown at the college clinics in this city.

SALT PORK IN THE EXTERNAL AUDITORY MEATUS.—Dr. Geo. O. Williams, of Greene, N. Y., writes: "A young lady was suffering from earache. On using the head-mirror, a greasy reflex was obtained from the deep portion of the auditory canal. With a small dental crochet a piece of salt pork as large as, and of similar shape to, a good-sized bean was removed. It had been introduced ten days previously as a domestic prescription for earache."

SOMETHING NEW IN BLOOD-LETTING.—A writer in the *British Medical Journal* had a patient over fifty years of age, who fell into a stupor, with high arterial action and distended venous blood-vessels. He proposed bleeding, but the attendants were horrified. He then took an aspirator and quietly introduced it into the left jugular vein which was much distended, and four ounces of blood was taken. In half an hour the result was so satisfactory that the operation was repeated, and six ounces more taken. She soon recovered, but neither she nor her nervous friends had any idea that she had been bled, until the process was subsequently explained to them.

AN OLD WOMAN.—The *Allgemeine Medicinische Central-Zeitung* states that there lives in the village of Zwanowka, Russia, a woman who is one hundred and thirty-one years old. She is still in "blooming health." She has had twenty children, of whom only two, aged seventy and eighty, are living.

The Medical Record

A Weekly Journal of Medicine and Surgery

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Original Lectures.

ON THE METHODS OF STUDYING THE BRAIN.

ABSTRACT OF THE CARTWRIGHT LECTURES, DELIVERED BEFORE THE ALUMNI ASSOCIATION OF THE COLLEGE OF PHYSICIANS AND SURGEONS, NEW YORK, FEBRUARY 2, 4, AND 6, 1884.

BY BURT G. WILDER, M.D.,

PROFESSOR OF PHYSIOLOGY, COMPARATIVE ANATOMY, AND ZOÖLOGY IN CORNELL UNIVERSITY, AND OF PHYSIOLOGY IN THE MEDICAL SCHOOL OF MAINE.

(Continued from page 227.)

LECTURE III.

SOME POINTS IN ENCEPHALIC ANATOMY WHICH ARE NOT INFREQUENTLY OVERLOOKED OR MISUNDERSTOOD.

As announced in the first lecture, the third comprises two parts, dealing respectively, with (*a*) certain facts in encephalic anatomy, and (*b*) methods of illustration and description.

In the choice of anatomical matters, three objects have been kept in view: 1, in general, the illustration of the methods described in the earlier lectures; in particular, 2, the elucidation of cœlian circumscription; and, 3, the correction or qualification of statements or figures in two English manuals of descriptive anatomy, Quain and Gray.

If any are startled at the intimation of possible imperfection in works to which students refer with confidence, and upon which, it is to be feared, some teachers too implicitly rely, they have only to compare the accounts of the brain in any two similar anatomical treatises, or in different editions of the same. In Quain, for example, so great are the textual and pictorial improvements of the edition of 1882 over that of 1877, that our admiration for the excellence of the one is qualified both by surprise at the defects of the other and by fear lest still further change may be required.

In respect to the macroscopic anatomy of the brain, the shortcomings of the two admirable works above named may be treated as: *a*, omissions; *b*, inaccuracies; *c*, statements or figures liable to cause misconception.

a. OMISSIONS. — *Bulbus postcornu.*— As previously stated, the mesal wall of the postcornu presents not only the calcar, but also, just dorsad of it, an elevation which Henle calls *Bulbus cornu posterioris.* It is not mentioned in the last edition of Gray, and in the last of Quain it is for the first time described, but not figured.

Cauda striati.—That the human striatum is prolonged as a slender "tail" following the remarkable curvature of the medicornu and terminating at or near the tip of the latter, is indicated in Cuvier's "Leçons d'anatomie comparée," in the editions of 1800–1805 and 1836–1846. This feature of the striatum is also described and figured by Reichert, Meynert, also, as stated by Dalton, by Gratiolet, Todd, and Hirschfeld, and more recently Dalton himself in the paper just mentioned.

In Quain the *cauda* is described as "passing nearly to the extremity" of the medicornu, but it is not distinctly shown in the figures. In Gray its existence is not recognized at all.

Cimbia (*Tractus transversus pedunculi*, Gudden).—According to Gudden and Forel, in many mammals, and sometimes in man, there crosses the crus cerebri, between the pons and the tractus opticus, a fibrous fasciculus which is said by Meynert to have been observed first by Inzani and Lemoigne.

Even if Henle is correct in stating that this fasciculus is only exceptionally present in man, some reference to it should be made in compendiums like Gray and Quain.

Striæ longitudinales callosi.—Here may be noted the lack of recognition, not only in the works above named, but in all others that have come under my notice, of the easily determined relation between the furrows and ridges along the meson of the dorsal surface of the callosum and the anterior cerebral arteries. Whether or not the pressure of the arteries is the sole cause of the two parallel furrows and the three corresponding ridges (*Striæ longitudinales, Nervi Lancisei*, etc.), the arteries lie in the furrows in all the brains examined by me in which the latter are distinct.

b. INACCURACIES.—Under this head may be embraced errors which are comparatively trivial, which have no direct bearing upon larger questions of morphology or physiology, but which deserve attention, both because they go to make up descriptive anatomy, and because, so long as they remain—on the principle *falsus in uno, falsus in omnibus*—distrust of other matters may be entertained.

"*Centrum ovale majus.*"—The name is placed in quotation-marks in order to indicate at the outset the fact that what is commonly understood thereby has no real existence. Not only in Quain and Gray, but in nearly every anatomical treatise published during the last hundred years, are the following statements, expressed or implied, either in words or in figures, or in both: "When the dorsal portions of the cerebral hemispheres are removed by a section coinciding with the dorsal surface of the callosum, the latter forms, with the cut surface of the hemispheres, a continuous and unbroken area of alba (white or medullary substance), bordered by the convoluted cinerea (gray substance, cortex) of the gyri. This area is the *centrum ovale majus*, to distinguish it from the *centrum ovale minus*—the area of alba bordered by cinerea which is seen when either hemisphere is sliced at some distance dorsad of the callosum."

The facts are, however: 1. The dorsimesal line of the callosum is not straight, but curved throughout its whole length, so as to necessitate a choice of the parts with which the plane of section is to coincide. 2. A horizontal straight line drawn laterad from most points in the dorsimeson of the callosum will intersect the procœlia, so that the latter is exposed by the section described.

So far as I know, this error was first corrected by Dalton. In the course of description of some macroscopic sections of the brain before the New York Academy of Medicine, March 6, 1879,[1] Dr. Dalton stated that "the centrum ovale (majus) as represented in the books did not exist, and was a picture of the imagination. The reason was that the corpus callosum, instead of being a plane, was an arched commissure, and it was

[1] As reported in THE MEDICAL RECORD, April 19, 1880.

impossible to make sections which would show what the book illustrated."

The callosum is not only arched, but arched both ways. The general and splenial ends are lower than the intermediate portion, and the lateral portions are higher than the mesal. It may be compared to an inverted saddle. The relative levels and thicknesses of the mesal and lateral portions are such that the lower surface of the latter is higher than the upper surface of the former, and the two procœlian cellæ are opened by a section such as is usually described.

Commissura fornicis.—In 1861 Reichert represented the fornix (when transected at or near the plane of the medicommissure) as consisting of thick lateral masses conjoined across the meson by a thin lamina, to which he gave the name *Commissura corporis fornicis*, or *Commissur des Gewölbes.*

Notwithstanding the classical nature of the work just referred to, I have yet to see a recognition of the name or of the anatomical feature indicated thereby.

In reality, in an adult human brain well hardened by alcohol, the thickness of the fornix along the meson dorsad of the diacele is not more than 1 mm., one-fourth or one-fifth that of the thicker part of the lateral masses.

The complete circumscription of the tip of the medicornu by nervous matter.—Without discussing here a point which was referred to in Lecture I., and which will be considered more fully farther on, it may be admitted that, along a line extending for most of the length of the medicornu ("cornu descendens"), the proper nervous wall is abrogated so as to constitute the *rima* (part of the so-called "great transverse fissure"), and that along this line the border of the velum constituting the proplexus finds its way into the cornu. These parts are commonly described so as to imply that the rima and the plexus extend to the *extremity* of the cornu, and that the latter therefore is in no part of its length completely surrounded by a continuous wall of nervous tissue.

In Gray the rima is said to extend "to the end of the descending cornu." In Quain the statements are even more explicit: The rima is said to extend "from the extremity of the descending cornu;" the choroid plexus "to the point;" and the choroid artery to enter "at the lower end." The same are expressed or implied in most works upon Descriptive Anatomy, and in Leuret and Gratiolet, notwithstanding the very clear representation of a continuous thick, nervous wall by Reichert.

Before this feature of Reichert's work had attracted my attention, I had, in November, 1876, determined that the tip of the medicornu in the cat is circumscribed for from 3 to 5 mm., and, in 1879, in an unpublished paper before the American Association for the Advancement of Science, demonstrated a similar circumscription in an adult human brain and in that of a child at birth. In the adult brains examined, the circumscription has existed for from 10 to 17 mm. from the tip of the cornu. A like condition has prevailed in all the mammals examined by me.

The transition from a thick wall of proper nervous tissue to the rima itself, where the abrogation of this wall permits the intrusion of the proplexus, is constituted by a delicate lamella, which seems to have escaped observation hitherto. In shape it is irregularly semilunar, something like the blade of a "turf-cutter," and looks as if let into the notch between the adjoining thicker portions of the cornual parietes. Its longer and convex border is, of course, continuous therewith, but its shorter concave margin is rounded and free, excepting for the adhesion of the pia and the endyma. In substance it seems to resemble other atrophied portions of the cœlian parietes (terma, valvula, etc.).

I refrain from giving a name to this lamella, partly because an appropriate single word has not yet occurred to me, and partly in expectation of learning that it has been previously observed if not named.

In general, the foregoing demonstration of a complete nervous circumscription of the tip of the medicornu illustrates the following points:

1. The possibility of omissions and inaccuracies in standard treatises. 2. The defects of the prevalent methods of preserving and examining the brain. 3. The disadvantages of purely anthropotomical methods of regarding the brain. From the condition of things in amphibia, reptiles and birds, and in mammalian embryos, no one would take for granted, without absolute demonstration, that an interruption of the nervous parietes extended to the tip of the medicornu, or even for any considerable distance along its length.

As already stated, the matters just considered are of comparatively slight importance, and merit attention mainly for the sake of attaining, so far as possible, an absolute accuracy in the description of all parts of the body.

But the points now to be discussed relate more or less directly to the question as to the extent and manner in which the encephalic cavities are inclosed, and therefore have a much wider bearing and deeper morphological significance.

With regard to two other large, hollow organs, the heart and the stomach, the continuity of the parietes is so immediately related to the performance of their principal functions, that the manner of circumscription of their cavities was promptly ascertained. No such obvious or urgent physiological argument applies to the brain, but, from the purely morphological side, the aspect which should be considered in advance of both descriptive anatomy and the study of function, there is equal need to determine the extent and manner in which the encephalic cavities are circumscribed.

Judging from personal experience, from common report, and from standard and current anatomical literature, as a basis for the comprehension of the structure of the brain, nothing is more essential than a clear and correct idea of cœlian circumscription, and, at the same time, nothing is more difficult to obtain.

The neurological expert may not need to be informed, and there are doubtless graduates in medicine who merely "follow a trade," and, like the poorer class of mechanics, hold thinking to be a waste of the time that might be spent in learning practical rules of thumb. But among the more earnest and intelligent members of the profession there are surely many who, at some period of their course, have been haunted and almost tormented by the desire to reconcile the statements and figures in the descriptive portions of their anatomical manuals with the ideas which seem to be inculcated in the embryological divisions of the same works or in treatises upon comparative anatomy. These morphological notions constitute, as it were, principles of anatomy which are at variance with what are commonly supposed to be facts. The result is a state of intellectual unrest quite comparable with the moral disquiet which is caused by an endeavor to harmonize the golden rule with the habit of self-indulgence.

It would seem that some of our anatomical predecessors were less burdened with morphological scruples. Two centuries ago Helkiah Crodke wrote as follows:

"Archengelus maketh mention of a passage which is in the middle and hath a double issue, one directly into the ventricles we speak of, the other into the palate[1] and so into the lungs. *This passage is known to but few.* [The italics are mine.] Neither can it be found but in a sound brain when the man cometh to a sudden and unlooked-for end and is presently dissected; for the parts of the brain that are about this passage do in a short time so fall and close together that the passage is cleane obliterated."

Nor need we go so far back for misconception as to the relations of the encephalic cavities. Tiedemann and

[1] This sounds almost like a prophecy of the comparatively recent determination of the manner of formation of the hypophysis as a diverticulum from the mouth. See Quain, ii., 831, and the papers there mentioned.

Solly described the lateral ventricles as resulting from the folding over of the hemispheres; the existence and position of a communication between the third and the fifth ventricles are gravely discussed by Meckel, Tiedemann, Leuret, Gratiolet, and others; in the eighth edition of Quain such a communication is admitted to exist in human embryos and some animals, and it would be hard to place in a single column a greater number of perplexing misstatements than occur in Todd's account of the ventricles in the "Cyclopædia of Anatomy and Physiology."

In the text of the latest editions of Quain and Gray occur very few positive errors with regard to cœlian circumscription.

The figures, however, are less satisfactory. Admitting that each figure fairly and correctly illustrates one or more points in encephalic anatomy, nevertheless, in the works above named, and even in the more elaborate treatise of Henle, besides errors and omissions in regard to other matters, every figure where the immediate cœlian parietes are represented either fails to convey any information at all, or indicates the reverse of the truth with regard to cœlian circumscription. This feature of the illustrations would be less puzzling if the extent and manner of cœlian circumscription were fully illustrated in special figures or treated in the text otherwise than indirectly, or even if it were stated that the encephalic cavities are or are not completely inclosed, but that the figures are not designed to illustrate the matter in detail.

Original Articles.

THE TREATMENT OF CROUP BY TRACHEOTOMY.[1]

By JOHN H. RIPLEY, M.D.,

PROFESSOR OF DISEASES OF CHILDREN, NEW YORK POLYCLINIC.

If anything more than clinical observation were needed to impress upon the profession the importance of the subject of membranous croup, it could be obtained from the mortuary returns of the Boards of Health of New York City and Brooklyn. During the last five years there have been reported to the Brooklyn Board of Health seventeen hundred and sixty deaths from croup. Dr. Lewis S. Pilcher,[2] in 1877, reported that it had risen in the scale of deaths in Brooklyn, from eleventh place in 1870, to fifth place in 1876. In New York City, during the last five years, there have been registered thirty-eight hundred and forty-three deaths from the same disease. So that we may say a yearly average of seven hundred families have been compelled to watch the slow death of a child by suffocation, while we still leave a margin for a number of families that must witness the same struggle repeated with a second or even a third child. Now this woful mortality results not from the fact that croup is so remarkably prevalent in these two cities; but because it is in a large majority of cases fatal. It was with the view of comparing clinical notes, and possibly adding something to our general stock of therapeutical knowledge of the subject, as I suppose, that Dr. Smith presented his paper for discussion.

In 1869 I ascertained, from a medical journal of good standing, that a solution of lactic acid, fifteen to twenty drops to half an ounce of water, thrown into the fauces and larynx every half-hour or every hour, by means of an atomizer, together with the internal administration of fifteen grains of the bicarbonate of soda every hour, would cure every case of true croup in from seven to ten hours. This was vouched for by a physician of excellent standing, who had been seventeen years crystallizing his views. I made a note of it at once. This cure, like many which have since followed it, has become a lost art. Up to the present time, it would seem that the only solvent for croup membranes which has acquired any enduring fame is lime-water. This remedy has the advantages that it is an efficient solvent of these membranes under favorable circumstances, and that it is, if not powerful for good, at least harmless for evil. As nearly every physician uses it in some form in croup, it has from time to time received a good deal of unmerited praise. A small proportion of children attacked with true croup will recover under any plan of treatment. During the last three years I have known of six recoveries without surgical interference. In two of them turpeth mineral was given credit for the result; in one the continual application of ice to the larynx; in another a single thirty-grain dose of calomel caused the membrane to exfoliate; in the fifth a solution of bichloride of mercury exhibited locally and constitutionally effected a cure; finally, in the last case, the parents believe that the discharging of the three doctors in attendance and the subsequent adoption of a plan of treatment devised by themselves saved the child's life. Cumulative illustrations could be furnished, and are from time to time published in the medical journals, showing, not that cures for croup have been discovered, but how very strong theories can be reared on very weak bases. In the use of Dr. Smith's new combination I have had no experience, but if it will save one child in eight, it has some merit. My faith in lime-water, like Jacobi's, has diminished since I have seen so little result in cases where I could freely apply it to the parts invaded, namely, to the trachea and bronchi after tracheotomy.

Dr. Jos. O'Dwyer, of this city, not knowing that somewhat similar attempts had been made before by others, began a series of experiments on croup children by tubing the larynx. He has kindly written to me the result of his experience:

Dear Doctor: In compliance with your request I send you the following epitome of my experience in the treatment of croup by tubing the larynx. During the past three years I used various modifications of a bivalve tube, introduced into the larynx through the mouth, in thirteen cases of croup.

Relief to the dyspnœa, more or less complete, was obtained in all except one, and lasted from a few hours up to the third day. The ages varied from five months to five years.

The amount of irritation produced in the larynx was in some cases very considerable, in others slight; a quiet sleep following the introduction of the tube being the rule. Difficulty of taking nourishment by the mouth existed in all except one, which was a septic case. One case, a little girl aged three and a half years, lived ten days after the tube was removed, dying of double pneumonia.

On three of the most favorable cases tracheotomy was subsequently performed, one of which recovered.

Ten of these cases were examined after death. In seven membrane was found in larynx, trachea, and bronchi. Two of these seven had also well-marked pneumonia; in one it was doubtful whether there was some infiltration or not; in four there was none that could be detected. One case was only partially examined, trachea and larynx, and membrane found in both. One case had double pneumonia, which was known to exist before the development of croup. Very little membrane was found in this case, the stenosis of larynx being principally due to swelling of the mucous membrane; and lastly the case of pneumonia above noted. I enclose the last modification of the bivalve tube that I used; the object of leaving it in this form being simply to make it self-retaining. A fatal objection to it is the open space left below, through which the swollen mucous membrane protrudes. I have abandoned its use and recently had

[1] Read before the Section in Obstetrics and Diseases of Women and Children of the New York Academy of Medicine, March 27, 1884.

[2] Croup and Tracheotomy in the City of Brooklyn, May, 1877.

made a plain elliptical tube, which I also enclose, but which I have not yet tried. Should it not prove self-retaining in its present form, I believe it can be so modified as to make it so.

Yours sincerely,

J. O'Dwyer.

It would seem, from this report, that one child was rescued from croup by the tube, although it subsequently died of pneumonia. Although this procedure, said to have originated with Dessault and subsequently condemned by Trousseau, has been repeatedly practised without much success, it certainly could succeed in a limited number of cases if it were possible by any means to differentiate the suitable ones. Thus far in the history of the treatment of croup, tracheotomy has done more in saving life than all other means combined. The further remarks in this paper will for the most part relate to this operation, and I propose first to consider the indications.

Indications for tracheotomy.—It would seem that there could be no indication where there is no croup, and yet I have known of operations being proposed where certainly there was no obstruction in the larynx or tubes beyond, but only nasal obstruction with mild catarrh of the larynx. Once I saw a case of double pneumonia with laryngeal catarrh, supposed to be croup, which had been subjected to a most exhausting course of emesis by turpeth-mineral. These mistakes could not occur if the proper physical signs were relied on. On the contrary, the experience of the author of the paper which is before us, in losing a child from suffocation during the night, that he thought would not need tracheotomy before morning, is not exceptional. Miscalculations of this kind will occur, and the only way to avoid so painful a result is to have a competent person on guard. I have been sent for at least half a dozen times to operate for croup and found the children dead when I arrived. In one of these cases the attending physician had not seen the child for twelve hours before calling me. The night-time is the most dangerous part of the twenty-four hours during which to leave a croup patient without a watcher.

Now, while I am in favor of closely watching cases of croup, and of being prepared to operate promptly, I am not, as a rule, in favor of very early operations. I agree with Dr. Smith that the operation should be done sufficiently early to give the operator time to do it carefully, and when once it has been decided that there is no probable chance without it, it is cruelty to the child to delay. There are cases which justify, perhaps demand, early surgical interference. Infants under two years of age, and especially those less than a year old, succumb very rapidly, often rather suddenly, to the disease, and we may not wait too long. Profound blood-poisoning or other complication may exist, which makes it dangerous and even prejudicial to recovery to delay. The operator may live at a distance from the patient and be so situated that it is impracticable to postpone operating. But, ordinarily, I should say we ought to wait until the respiration becomes continuously labored, with marked symptoms of cyanosis and beginning failure of the vital powers.

A teacher of medicine, justly distinguished in other diseases of the respiratory organs, was accustomed to advise his students that whenever croup had advanced so far that inspiration was accompanied with epigastric and supra-sternal recessions, an operation would be useless. Of course these symptoms are pathognomonic of prevesicular obstruction, especially laryngeal stenosis, and until they appear an operation is not indicated. A croupy cough, stridulous breathing, and aphonia may be present, and yet no sufficient stenosis of the larynx exist to demand tracheotomy. Early operations are not infrequently unnecessary operations—a harmless catarrhal laryngitis being mistaken for a pseudo-membranous croup, or a mild case of croup being operated on which would have recovered without surgical interference. Unnecessary operations are to be avoided for the following reasons: 1. Because they are of immediate danger to the child's life. 2. They endanger it secondarily by erysipelas, abscess, and other consequences. 3. They may permanently injure the trachea and larynx.

If I agreed with those who believe that tracheotomy predisposes to pneumonia, I should still more strongly urge against early operations.

Contra-indications.—In regard to contra-indications, I am confirmed by additional experience in the opinion that I expressed four years ago, viz.: "That tracheotomy for croup is always a justifiable operation if the paramount factor in causing death be apnœa."[1] I would tracheotomize a child dying of croup even although I knew it to be suffering at the same time from extensive bronchitis, pneumonia, or uræmia, or all three of these complicating diseases. There is a prevalent opinion that it is possible to distinguish favorable from unfavorable cases before the operation, and thus the operator is enabled to "select his cases." If this were so it seems to me that it would be very inhuman in a surgeon to practise it. Surely he should not abandon a number of children to certain death by suffocation on account of endangering his reputation as a successful operator. But, as a matter of fact, a prognosis based on the condition of the child before the operation is unreliable. Especially is this true when such prognosis rests on the result of a physical examination of the lungs. Dr. Roberts has illustrated this point in one of the cases which he reported at the last meeting. The physical sign which is of most value before operation in respect to the lungs is percussion. Generally this sign will give increased resonance over both lungs, and that, of course, excludes pneumonia. The auscultatory signs are so obscured and perverted by the laryngeal and tracheal sounds, sometimes also by large pieces of membrane which have fallen into the larger bronchi, that little reliable information can be obtained by auscultation. I have known many a case of supposed bronchial croup clear up as soon as the tube was in the trachea. Severe nephritis and profound toxæmia of course lessen the chances of recovery. Uræmia especially seems to increase the tendency to the formation and extension of membrane.

Although infants under one year old are not very promising for tracheotomy, still such cases are not entirely hopeless, as is shown by statistics. One of the most remarkable instances of recovery at this early age was a child eleven months old, under the care of Dr. Geo. F. Shrady. In that case there was a good deal of cellular infiltration about the neck, the nose and pharynx were the seat of membrane, and the constitutional symptoms were marked (Medical Record, vol. xxii., p. 512). If diphtheritic deposit on the fauces or in the nasal passages has preceded the onset of the croup for a number of days, I consider it a favorable circumstance. For, in my opinion, the disease is self-limited, and the nearer we get to the termination of it before the larynx is invaded, the less the danger of extension of membrane into the bronchi. Malaria, erysipelas, and other complicating diseases prolong its course and increase its severity. In certain published reports of discussions on the subject of tracheotomy for croup I see that a number of surgeons argue against the operation in *diphtheritic* croup, because, as they say, all such cases terminate fatally; whereas, in "genuine membranous croup," as they call it, the operation sometimes saves life, and hence they advocate it. Even the author of the paper under discussion, who is the standard-bearer in this city of those who believe in a local, non-contagious croup, thinks that the croup which has prevailed in New York City during the last few years is diphtheritic; so that to question recovery from diphtheritic croup is to ignore a considerable part of Dr. Smith's statistics. If contagiousness, systemic poi-

[1] Tracheotomy in Croup: Medical Record, vol. xviii.

soning, albuminuria, and secondary paralyses are sufficient proofs that cases were diphtheritic, then we can show recoveries from diphtheritic croup after tracheotomy. In seventy of my own operations in which I have carefully noted whether the croup were primary, or occurred secondarily after several days' illness from nasal or pharyngeal diphtheria, or one of the eruptive diseases, the proportion of recoveries in twenty-five cases of late croup was forty per cent.; in primary, twenty-four per cent.

Prognosis.—The prognosis *after* the operation will depend in a majority of cases on whether membrane forms to such an extent below the tube as to involve extensively the bronchial tubes, and so produce secondary or bronchial croup. Pneumonia, whether catarrhal or croupous, has been, in my experience, an exceedingly rare cause of death after tracheotomy, and I do not see why it should be otherwise. Diphtheria itself has very little tendency to localize in the deeper air-passages, except by extension of the membrane downward from the larynx. Ascending croups are mentioned as occurring, but they do not often come under observation. Only those children die of lung complications, as a rule, that first have croup. The inflammation of the mucous membrane of the bronchi only keeps pace with the exudation of membrane upon its surface, so that, long before either the exudation or the inflammation can reach the air-vesicles, the patient must die of suffocation. This has even proved true in two cases of adults that I have seen, although, for obvious reasons, they were able to bear a more extensive invasion.

As to the theory that the admission of cold air into the lungs has a tendency to excite pneumonia, I do not think that is sustained by either clinical observation or experimentation. I have done tracheotomy a number of times for other obstructions than croup, and have known of its being done by others, with no such precautions as we ordinarily take with these little children, and yet not even a general bronchitis has been caused. There have been several tracheotomized vagrants about the city, one of whom had phthisis, that seemed to suffer very little from their exposures.

I have here a letter written by a patient whom I tracheotomized for Dr. Charles F. Stillman, over six years ago, for chronic laryngitis. He is still wearing the tube, as appears, with very little discomfort. It seems to be a settled conviction with those who hold the pneumonia theory, that when their patients get this complication a fatal result must follow, and I have yet to hear of the first recovery from this alleged condition. To me such a diagnosis would carry with it a comparatively favorable prognosis, inasmuch as quite a percentage of recoveries take place from secondary pneumonias in other infectious diseases. Other reasons why this secondary lesion is not pneumonia might be assigned, especially a consideration of the course of the disease and of the physical signs attending it; but after all the question is, "What do we find at the autopsy?" Steiner says: "Pneumonia is a much rarer complication of croup than is commonly supposed. Sometimes it occurs in a *lobular*, less frequently in a *lobar* form. In seventy-two autopsies I found the former variety only eight times, the lobar diffuse pneumonia only six times; hence I am surprised that some writers regard pneumonia as one of the most frequent complications of croup." How much these *fourteen* pneumonias had to do with causing death, the author does not say. In ten autopsies made by Dr. J. O'Dwyer on the bodies of infants that died with croup, all the cases having been treated by tubing the larynx, and two of them later by tracheotomy, pneumonia was found in three instances. In one it had preceded the croup and was the cause of death. In one it complicated the croup and was a factor in causing death. In the third there was not sufficient infiltration to influence the result. In private practice it is very difficult to obtain autopsies on the bodies of children that have been subjected to tracheotomy, and hence I have had an opportunity of attending only seven post-mortem examinations. In only one of these was there pneumonia, and that was limited to the upper lobe of the right lung. In the other cases there were present in the lungs, chiefly, extensive bronchial croup, scattered areas of collapse, and consequential vesicular and interstitial emphysema. If the children could live long enough, I suppose the collapsed portions would be succeeded by pneumonia.

During the last three years I have saved nearly one-third of the children that I have operated on for croup, not on account of any new and especially valuable treatment that I have adopted, but because there has been less tendency of late for the membrane to extend deeply into the bronchi. The course of the disease varies in different epidemics, and from time to time in this city, where it seems to be endemic. In my first experience with diphtheria it was rare to have croup complication. Steiner says: "In North America the implication of the bronchi seems to have been noticed very frequently, while in England during recent epidemics it has been strikingly rare." This comparative exemption of the bronchi from membranous deposit may serve to explain, in a great measure, the remarkable success from tracheotomy which Dr. Smith has quoted from abroad.

Tracheotomy.—Tracheotomy for croup is said by many to be a simple operation, and quite free from danger. When applied to a limited class of cases this statement is true. But, generally, as Dr. Leale says, it is not only a difficult operation, but one attended with great immediate danger to the life of the patient. The operation itself has been so often described that I will only say a few words in regard to some practical points connected with it.

I prefer to operate below the isthmus, because (1) the calibre of the trachea is greater at that point than above, and (2) because I can subsequently explore the interior of the trachea better in case of obstruction or other trouble; and (3) I believe there is less danger of permanent injury to the larynx, especially if the tube is to remain in a long time. On the other hand, I do not favor opening the trachea lower down than necessary. The superficial incision should not reach nearer than within half an inch of the sternal notch, which is an important landmark during the operation. For nothing is to be gained by having the tube reach a half-inch further down in the trachea, and when the opening is too low, on account of the anatomical relation of the trachea to the plane of the root of the neck, the canula cannot be made to fit either accurately or comfortably. Besides, there is danger of wounding the innominate artery in this very low operation, as has already happened. Lastly, the anterior mediastinum is frequently opened into in very low operations, producing mediastinal emphysema, sometimes mediastinal abscess. This emphysema I have twice found at autopsies and referred to before. I believe if the admission of air into this space ceases as soon as the operation is completed, little harm is done, unless other matters also escape into it, as blood and pus from the tracheal opening. But if continued, on account of a large incision in the trachea, a comparatively small tube, and a close suturing of the superficial soft parts about the tube, it might become a source of embarrassment to the thoracic organs. Emphysema of the superficial cellular tissue of the neck can always be prevented by seeing that the tube extends well into the trachea and that the soft parts are not closed too tightly around the tube. This seems to be quite a common accident. After the trachea is opened, if dilators are used there is ordinarily time and opportunity for examining its interior, and extracting any loose pieces of membrane that may be present; but it is a fruitless and dangerous task to attempt to swab out a trachea lined with adherent membrane as one would a foul gun-barrel. Such membrane is not likely to do harm, even in the way of obstruction.

I was glad to hear Dr. Lange give the weight of his opinion in favor of using a tube after the operation. If these instruments fit properly they cannot do harm. I have already referred to patients who have worn them for years. The most suitable are those made of silver, consisting of a double canula, the external fenestrated, and a movable plate about two inches by one-half inch attached to the outer extremity. I lost one child, as I believe, that was progressing favorably, by having in use at the time a non-fenestrated canula. While the mother, alone with the child, was cleaning the inner tube the outer one became suddenly obstructed, and the child immediately suffocated. Had there been a fenestra above, this accident might have been avoided. A tube is easily managed and keeps the way open as far as it reaches. As a rule, children breathe better when it is in place than without it, even although the superficial parts of the wound be widely separated by inflammatory process, and the tracheal opening be enlarged by exsection of a portion of the anterior wall. In the absence of a tube the same accident is likely to happen as was met with by both Dr. Lange and myself, namely, the mechanical closure of the opening by a twist or bend of the neck. In my case the child would certainly have died within a few minutes more had it not been relieved.

After-treatment.—It would no doubt materially increase the number of recoveries after tracheotomy, if a competent nurse, one especially skilled in the management of these cases, could be kept in continuous attendance until convalescence should be fully established. I have lost four children by suffocation from obstruction of the tube, and two of them would almost surely have recovered but for this accident. In most of the cases that I have operated on during the last four years, no medicine whatever has been given until after the establishment of convalescence. In nearly all, stimulants in the shape of brandy, whiskey, or champagne, have been taken freely. Milk has formed the principal article of diet. Iron, cod-liver oil, and hypophosphites have been given later. Locally, so far as membrane of the wound, fauces, or nose was concerned, I have done substantially nothing. If acrid discharges from the nose or wound were producing excoriations of the contiguous parts, I have tried to keep the offending parts clean. Whenever I have had harsh and obstructed breathing I have used simple steam or lime-water spray.

They do good by liquefying the inspissated muco-purulent matters and by keeping the mucous membranes moist, and so palliate the symptoms. I do not believe steam, whether simple or that evolved from slakening lime, is of much practical value in dissolving croup membrane. I have been a party to the treatment of at least twenty cases of croup with lime-steam, and I have yet to see the first recovery. The only apparent solvent effect on membrane that I have ever produced by the use of lime-water in croup has been in a few cases of large children, where I have been able to spray or pour it into the trachea by the teaspoonful, repeating the operation in one case every hour, nearly for thirty-six hours. It seemed, in two cases at least, to gradually relieve the secondary dyspnœa. With lactic acid my experience corresponds to that of Jacobi, that is, I saw one child apparently benefited by its use several years ago, but none since, although I have seen it used many times.

After the tube is permanently removed it is not necessary to either suture or strap the wound. A little pad of marine oakum or other cleanly and porous material placed over it, and held loosely in position by a roller, will sufficiently protect it until it heals, which will require but a few days provided the child has recovered from the disease.

DR. VAILLE.—Dr. R. C. Newton writes that Dr. Vaille, to whom he referred in an article (MEDICAL RECORD, Jan. 19, 1884), is still living, although retired from practice.

SYPHILIS AND LOCOMOTOR ATAXIA.[1]

BY LEONARD WEBER, M.D.,

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PATHOLOGISTS have not succeeded as yet in demonstrating a syphilitic sclerosis of the posterior columns of the cord, but clinically, the question of a causal nexus between syphilis and tabes has assumed considerable importance. The number of observers who believe in a syphilitic origin of many cases of tabes is large, probably larger than those who deny such origin, although the latter have among them men of great authority and experience. The question being far from settled, the practitioner has the privilege as well as the duty to contribute his mite of experience in a matter of such clinical significance.

In former years, the search for syphilitic lesions of the central nervous system in the dead body was limited to the brain, and the cord was generally forgotten, or rather neglected, on account of the difficulty and loss of time which is met with in its dissection. Although Romberg, Wunderlich, Virchow, and others spoke of syphilis as an etiological factor in tabes, already thirty years ago, no modern clinician was as emphatic in pronouncing his belief that syphilis may produce an ataxia of its own, as A. Fournier, 1876. The proofs he furnishes for this assertion are mainly statistical; he does not deny that syphilitic tabes may be typical and atypical, and that it has no pathognomonic symptoms. But from a diagnostic point of view he lays great stress upon the *types incomplets*, the irregular forms of syphilitic tabes, and distinguishes: 1. The lumbar or exclusively spinal type, in which the cerebral nerves are not affected. 2. The cephalic type, where the cerebral nerves participate. 3. The ophthalmic or amaurotic type.

It is hardly necessary to say that we meet with Fournier's *types incomplets* in ordinary tabes as well as that of syphilitic origin, but his experience that tabes may occur in cases where there are other specific lesions of the nervous system, or may follow the latter, is an important observation.

Grasset and Vulpian, Fériol and Liredey, hold similar opinions; William A. Hammond mentions syphilis as a very probable cause of tabes, and Hutchinson repeatedly speaks of syphilitic ataxia.

Within the last four or five years the Germans have given much attention to the etiological connection between syphilis and tabes, and Berger, 1878, and Erb, 1879, were the first, I believe, who studied the question clinically. Berger is convinced that many cases of tabes are of syphilitic origin; Erb believes that constitutional syphilis often creates a predisposition to tabes, and accepts Fournier's tenet, that in all cases of ataxia which have syphilis included in their history, specific treatment should be applied tentatively. The question of syphilitic localization in the cord in such cases, or of the presence of a specific sort of sclerosis, he leaves for future pathological research to decide. I conversed with Erb a few weeks before he published his first paper on the subject in *Deutsches Archiv für Klin. Med.*, xxiv., 1879, and perceiving the clinical importance of the matter, I have since written up the history of cases which I have had in my practice, and inquired into their bearing upon this question.

Erb's views, though supported by a formidable array of statistics, were not received with great favor at the International Medical Congress, held in London in 1881, and the experience of the majority of physicians who took part in the discussion of his paper did not coincide with his own.

Again, at the meeting of neurologists and alienists at Baden-Baden, in June, 1883, Erb reports another hundred cases of tabes in the etiology of which all important factors have been examined into, and has found no di-

[1] Read before the New York Academy of Medicine, at its meeting on March 20th.

rect hereditary influence in typical tabes, and that a neurotic disposition has but little to do with it, the majority of the patients having been previously in rather robust health. But syphilis he finds the most important cause; 91 of the 100 cases had chancre and syphilis respectively, 9 only had neither, 69 developed symptoms of ataxia in the first fifteen years of syphilitic infection, 15 between sixteen and twenty years thereafter, the others still later. The same or nearly the same results are given in the statistics of Fournier, 93 per cent.; Rumpf, 66 per cent.; Voigt, 81 per cent., and G. Fischer, 72 per cent. Of 1,200 individuals all over twenty-five years of age, and afflicted with various disorders except locomotor ataxia, only 22.75 had syphilitic antecedents. In 3 only out of 109 cases of locomotor ataxia, rheumatic influences were thought to be the only cause. Sexual excess and trauma had but little influence in producing tabes, according to Erb. Myosis, and particularly the Robertson pupil, as well as the paralytic affections of the muscles of the eyeball—symptoms that occur by themselves mainly in syphilis—also speak for the syphilitic character of tabes. Tabetic women frequently have a syphilitic history. Erb finally says, "tabes is probably a syphilitic affection, the development and local area of which are determined by predisposing causes."

Benedict, of Vienna, is a firm believer in syphilitic tabes, and says that it is particularly apt to develop in those individuals who have suffered much from specific cutaneous lesions. Why syphilitic exanthemata and ulcerations of the skin should be followed by tabes any more than non-specific exanthemata and chronic ulcerations, which occur so frequently, I fail to see. Among those who either deny a causal connection between syphilis and tabes, or hold their opinion in reserve, we find Moxon ("Guy's Hospital Reports," Series iii., vol. xvi., 1871) ready to deny the etiological influence of syphilis in tabes, as he has not been able to find a trace of syphilitic lesion in 17 autopsies of cases of posterior degeneration of the cord. Lancereaux, in his well-known work, 1873, treats of syphilitic myelitis, but not of syphilitic degeneration of the posterior columns. Westphal, in a discussion on the subject (*Berl. Klin. Woch.*, p. 141, 1880), says that the autopsies of tabetic individuals, as well as the statistics within his reach, militate against the etiological connection of syphilis and tabes. Again, in a second paper on the subject (*Archiv für Psych. and Nerv. Krk.*, vol. xi., No. 1, p. 230, 1880), he comes to the conclusion that no sufficient pathological nor clinical proofs have as yet been brought forward to make the etiology between syphilis and tabes certain, or even probable.

M. Rosenthal (*Wien. Med. Presse*, 1881, Nos. 3, 6, 7, and 9) is as decided as Westphal in his opposition, and finds that the opposing party have used the statistics to suit their own particular views. Among his cases of tabes with a syphilitic history he cites seven in which the symptoms of specific myelitis were greatly improved by specific treatment, while the clinical features of ataxia remained as before. He maintains that the therapeutic results in typical tabes after syphilis are as unsatisfactory as in the cases uncomplicated by it, and that remissions occur in the course of galvanic and hydriatic treatment in the specific cases as well as in the others.

Among the French it is particularly Juillard ("Etude Critique sur la local. de la Syph.," Paris, 1879), who from the standpoint of pathological anatomy is opposed to Fournier's views. Spinal syphilis is always diffuse, he says, and does not affect a system of columns exclusively, and therefore cannot be the direct cause of posterior sclerosis. That diffuse spinal syphilis may give rise to ataxic symptoms he does not consider unlikely.

In looking over the statistics of tabes in the course of syphilis we are surprised by the enormous difference in the percentage reported by the various authors. Here we have Eulenburg with ½ per cent., W. R. Birdsall with 9.5 per cent.; Westphal with 14.6 per cent.; M. Rosenthal with 18 per cent.; O. Berger, 20 per cent.; Remak, 21 per cent.; Gowers, 70 per cent.; G. Mayer, 70 per cent.; Fournier, 80 per cent.; Erb, 88 per cent., and in his last report with 91 per cent.; A. Reumont ("Syphilis and Tabes," Aachen, 1881), 36 cases of ataxia with a syphilitic history. Again, in paralytic dementia, which we know to be not rarely preceded by tabes, Mendel and others have found no less than 75 per cent. with a history of syphilis. How are we to account for this remarkable difference in the statistics and opinion of authors? It is reasonable to presume that, until quite recently, the inquiry as to syphilis in the anamnesis of tabetic cases has not been as rigid as might have been. It is quite certain that specialists like Fournier, and physicians practising at certain watering-places where a good many syphilitic patients come for treatment—like G. Mayer, Voigt, and others—will have a much higher percentage than other practitioners. Erb's and Gower's high figures would show that they have been particularly searching in their inquiry into the antecedents of their tabetic patients, and were satisfied to attribute the spinal disorder to syphilis when present in the history of the patient. These statistics prove one thing beyond a doubt, that syphilis occurs frequently in the anamnesis of ataxia, and corroborate the fact which is more and more appreciated, that syphilis is a wide-spread affliction, and that in luetic persons serious lesions of the central nervous system occur, which probably would not have developed if they had not had the syphilitic cachexia.

Siegmund (*Wien. Klin. für Syph.*, p. 33, 1878) having of all observers probably the largest material at his disposal, gives the statistics of cases of syphilis observed in the course of twenty-eight years, from 1849 to 1876, which go to show that the disease is on the increase relatively and absolutely; and he is constrained to say that syphilis is the worst of all diseases afflicting humanity, because the most insidious—poisoning the present and tainting the future generations—a statement in which I fully concur after an experience of more than twenty years in practice among all classes of society, and the importance of which for practical purposes was recognized in the discussion of an interesting paper read before this Academy by Dr. Sturgis about two years ago. We are not satisfied with the history of any serious case unless accompanied by a thorough test of the patient's urine, and the practitioner who, in chronic and puzzling cases, is not on the look-out for syphilis as a complicating element, and will not carefully try to eliminate it by getting a true statement of the facts from the patient, or by tentative therapeutic measures, will often meet with unpleasant surprises where he least expects it. If, therefore, we rank syphilis among the important predisposing or inciting causes of tabes, we shall not be far from the truth. I should not like to leave this part of the subject without saying something about the influence of masturbation upon the central nervous system, when its practice is begun at the age of puberty and continued for one or more years. There are some who make light of its effects upon the system, and believe that the same are psychical only. While I do not deny that the vicious habit may produce more or less serious mental disturbances, particularly in those with neurotic taint, its hurtful effect upon the cord and sympathetic can be plainly seen in those cases of mal-nutrition and neurasthenia in the adult, in which the early indiscretion has been acknowledged, and our examination failed to disclose other influences.

More important than the loss of semen appears the debilitating influence of the frequent sexual orgasm in the masturbator, as well as the frequent nocturnal emissions, which persist for a long while after he has discontinued the vicious habit, in exhausting the cord and brain, and by excessive irritation and subsequent malnutrition creating a predisposition not only to functional but also to organic disease of either or both. This consideration explains to me why the female masturbator

may suffer from the effects upon the spinal cord as well as the male, while regret and shame of being guilty of a contemptible act, increased by the impotent rage of not being able to overcome the passionate desire, prepare the way for the development of mental depression, or some form of psychosis.

I have seen in my practice, at all events, a few cases of locomotor ataxia, in the history of which masturbation in early youth was found to have been the foremost cause.

A disease as widespread and of so baneful an influence upon the constitution as syphilis, cannot fail to show itself often in the etiology of disorders of the nervous system. Reumont, for example, found among 3,400 cases of syphilis, 298 (8½ per cent.) with affections of the nervous system which he believes to have been of specific origin, showing again how important it is, from a therapeutical point of view, to examine as to syphilis in all cases of initial tabes, for the reason that our therapeutic efforts are almost always nil, when they have reached the ataxic stage, no matter what their cause may have been. My own cases of syphilis, observed through a period of twenty years, do not show many instances of specific disease of the cord or brain. My cases of tabes constitute so far but a small number; yet syphilis, as an important etiological factor, occurs in the history of some of them, and I believe that it certainly creates a predisposition to locomotor ataxia, but does not act as directly as rheumatic influences.

From a clinical standpoint, tabes often presents so complex a picture of regular and irregular symptoms, that great difficulty may arise in deciding which of them depend upon specific lesions of the cord.

Charcot, Erb, and other authors, from numerous facts observed of late are led to the conclusion that the typical form of tabes is not caused by disease of the posterior columns alone, but that the neighboring parts of the lateral columns and the posterior gray horns are also affected. If this be true for the typical it is the more so for the atypical cases, which are more often seen in syphilitic patients than the former, and in which various lesions may be found both in the cord and meninges.

Virchow, as long as eighteen years ago, in his "Onkology," vol. ii., p. 438, says: "The entire and probably pretty large domain of the simple irritative processes incited by poisoned blood and otherwise, has not yet received satisfactory explanation as to its effect upon the central nervous system; observations in that direction have only commenced; it is hardly doubtful that some cases of tabes are of syphilitic origin." This sentence holds good to-day to a great extent. However, foreign observers have furnished sufficient proof of late that cardiac hypertrophy and arteritis in chronic nephritis are due much more to the irritative action of the poisoned blood than to the diminution of the area of small blood-vessels in the diseased kidney. Now, in sclerosis of the posterior columns we have a chronic form of inflammation, hyperplastic in character, either occurring primarily in the connective tissue of the medulla or of the lepto-meninges and adventitia of the pia-vessels. I think it quite probable that in constitutional syphilis the irritative action of the syphilitic blood may start such inflammation when other conditions are favorable to its development. At the last annual meeting of the American Neurological Association, in June, 1883, Dr. Mills, of Philadelphia, said that, in comparing the inflammatory changes he had seen in the spinal meninges as well as the cord with the symptoms in the early stages of certain cases of locomotor ataxia, he became persuaded that posterior sclerosis is perhaps in many cases of lepto-meningeal origin. Similar views were held by other members present.

The more we learn of tabes, the more the conviction is forced upon us that pathologically and clinically it is rather of protean form. There is the typical primary posterior sclerosis, the most terrible form, and as untractable to-day as years ago, when Romberg first drew its gloomy picture, generally uninfluenced also by specific treatment when there is a combination with syphilis.

A second and frequent form of tabes, I believe, is caused by slow atrophy of the medullary nerve element and slow proliferation of connective tissue, characterized by initial asthenia and gradual loss of muscular tone and power; considerable diminution, but not abolition, of tendon-reflex; various rheumatoid pains, often recurring, but neither severe nor of long duration; paræsthesias about the rectum, bladder, and sexual organs, and painful sensations in the joints, particularly the knees, ankles and wrists, and the heels; sexual weakness is often well marked. Besides these, various symptoms of mal-nutrition and vaso-motor disturbances are observed. There is no appreciable ataxia in such cases, and the patient can stand and walk pretty straight, with eyes closed, but not as well as healthy persons.

To the objection that such cases are simply aggravated neurasthenia, depending upon functional disorder of the cord, I would answer that spinal neurasthenia, unless hereditary, concerns persons who have previously been healthy, and frequently become so again by timely and proper treatment; while the individuals above described never get normal health and strength again, but are generally led into *senectus præcox* by gradual spinal atrophy. In my experience this form of spinal trouble occurs mainly in adults between thirty and forty years old, with a history of free and long-indulged masturbation at the age of puberty. It is of very slow growth, apt to remain stationary in its main features for years, and amenable to galvanic and hydriatic treatment. Such patients are apt to succumb more easily to intercurrent acute diseases, because they have but little reserve force. As a third form we would designate the irregular and mixed myelitic or meningo-myelitic types of tabes, in the etiology of which the syphilitic and other cachexias, metal-poisoning, trauma, and disease of the spinal vertebræ are important elements. It is mainly in these atypical cases where a temporary or even permanent cure of the tabetic trouble is often effected by specific treatment, when syphilis is found to be present in their history.

Although I have said above that no typical case of tabes of syphilitic origin has yet been cured by specific treatment, I have quite recently come across a communication, published by O. Berger, of a case of characteristic ataxia in a military officer, developing in the course of syphilis, which was apparently cured by thorough mercurial treatment.

Diagnosis.—Experience having shown that the clinical symptoms of specific and non-specific lesions of the central nervous system are generally the same, the differential diagnosis in most cases will have to be made *ex juvantibus*, although Wunderlich and Heubner say that their regular types of tabes, characterized by early loss in weight and motor power, and the instability of the disturbances in the sensory and motory sphere, and the rapidity of their development are indicative of their syphilitic origin. The syphilitic cases are also marked by the symptoms of meningitis, such as irritable and painful spine, and by simultaneous mental disturbances, paresis of cerebral nerves; but not by well-developed ataxia, according to Erb.

It has also been observed of late that in many cases of syphilis the outbreak of constitutional disturbance is preceded by considerable diminution or abolition of the patellar tendon-reflex, showing how apt the syphilitic poison is to affect the cerebro-spinal organs. That Romberg's sign is one of the most constant and regular in tabes is accepted by all observers, and that the absence of tendon-reflex is not an absolutely constant symptom has been proved by O. Berger and H. Fischer (*Med. Centralblatt*, 1879, No. 4); but nearly all are agreed that Westphal's sign is fully as important in the diagnosis of posterior degeneration of the cord, if not more so than Romberg's.

Prognosis.—The prognosis of tabes of syphilitic origin

is relatively favorable when the syphilis is not of very long standing, when the tabetic symptoms are irregular and yield promptly to specific treatment; relatively unfavorable when the opposite conditions prevail. Benedict says that in cases of syphilis of the central nervous system he has often succeeded in ameliorating or removing the spinal symptoms while the cerebral trouble remained either stationary or continued its progress. Reumont and other observers have had similar experience.

Treatment.—The therapeutic results have thus far been far below the sanguine expectations of the positivists; yet there is a respectable number of tabetic cases with a syphilitic history greatly improved or brought to a stand-still, and a few even cured by specific treatment. Fournier reports some, so does Erb; G. Mayer has seen many improved, none cured; Lewin and Benedict believe in thorough mercurial treatment. On the other hand, we learn that M. Rosenthal has seen an aggravation of the tabetic symptoms after specific treatment in seven cases, and Westphal knows of no case that has been cured, but does not condemn a trial of specifics in suitable cases.

Most of the authors mentioned prefer a thorough but carefully graded inunction-cure with unguent. hydr. combined with plain warm-baths, or sulphur or salt-water baths, following this up by a moderate but long-continued use of the iodides and the galvanic current; climatic and hydriatic cures constituting the therapeutic finale.

In comparing the results of the treatment of cases of syphilis I had in the first ten years of my practice with those of the last ten years I find them to be better in the latter than in the former. Not only was the time required to make the syphilis latent shorter, but the relapses were less frequent and less severe and better manageable. I attribute this better success to my discarding the giving of mercury or the proto-iodide of mercury by the mouth, and using instead the inunction-cure according to Sigmund's method, and as I have seen it practised by the physicians in Aachen (Germany), and at Hot Springs (Ark.), in this country. I venture to predict that any one who will follow this method of treating fresh cases of constitutional syphilis systematically and without regard to the patient's whimsical objections to the troublesome cure he has to undergo, will have the satisfaction of effecting a quicker, better, and permanent cure than by following the other method of giving the medicines by the mouth. That there are syphilitic patients who will not bear mercurial treatment, inasmuch as they are afflicted with scrofulous or other diatheses, or show such an idiosyncrasy that they will get stomatitis and salivation at the very commencement of mercurial treatment is quite certain, but their number is small indeed. I have also met with cases which I could ply with mercury by the mouth or by the skin to any reasonable extent without healing the syphilitic lesions, nor yet observing any of the constitutional effects of the drug. Not unfrequently we meet in old cases of syphilis with sudden and alarming symptoms from the central nervous system. It would be fatal here to lose time by instituting some methodical plan of cure, while large doses of the iodides promptly given and often repeated may be found of eminent service.

The number of cases of syphilis of which I have kept a record amounts to 134, 110 of them men and 15 women. None of them has been less than four years under observation, most of them from ten to twenty years. It would be trespassing upon your time and patience to read the history of these cases to you; but I should like to give the details of a single one, not for the bearing it has upon our subject, but because it is the only case that I have ever seen of syphilis occurring twice in the same person.

W. S——, American, thirty-eight years of age, liquor-dealer, came to me first in 1864, with chancre and indolent inguinal buboes, followed by general and well-marked roseola, and specific lesions of mouth and throat. By a course of mercurial treatment and the iodides his syphilis became latent within two years, and, to my surprise, he remained free from all symptoms three years thereafter. In 1869 he came to me again with a venereal sore on his penis, the base of which was somewhat hard, and was followed in due time by a train of constitutional symptoms like the first chancre (in 1864), but milder in form; they yielded to the usual specific treatment in about two years. But from 1872 to 1880 he suffered from time to time from various neuralgias of cerebro-spinal nerves and periosteal affections, which were relieved by specific treatment.

Of the 134 cases, 18 had symptoms of specific lesions of the central nervous system, *i.e.*, 13.5 per cent.; 8 of them of the brain alone, *i.e.*, 6 per cent.; 5 of the brain and spinal cord together, *i.e.*, 3.7 per cent.; 5 of the cord only, *i.e.*, 3.7 per cent. Two of the 8 cases died of cerebral syphilis, the others are still alive but not cured. Of the 5 cases of syphilitic affection of the cerebro-spinal axis, 2 have succumbed to the disease, 3 still live. Of the 5 of spinal syphilis, 1 died of syphilitic paraplegia, 4 live and are relieved by treatment.

Of tabes I have records of 17 cases.

Case I.—L. A——, German, fifty-seven years of age, single, merchant, under observation from 1864 to 1866 with the characteristic symptoms of locomotor ataxia, typical, complicated by diabetes mellitus. Died rather suddenly of diabetic coma, 1867. No syphilitic history.

Case II.—H. B——, American, sixty-five years of age, married, merchant, under observation from 1869 to 1876. Typical case of tabes involving the brain about 1874, and ending with dementia paralytica and death in 1876. Venereal excesses were acknowledged in this case, and syphilis was strongly suspected.

Case III.—G. K——, German, thirty-eight years of age, married, clerk. Typical case of the amaurotic type, with strongly marked ataxia beginning in 1872; uninfluenced by treatment; present condition unknown. Etiology: rheumatic influences, no syphilis.

Case IV.—G. S——, German, fifty-four years of age, married, merchant. Typical case of tabes of the lumbar of twenty-four years' duration. No syphilis.

Case V.—H. H——, forty-seven years of age, German, married, horse-dealer. Typical case of tabes of the lumbar type, almost stationary for fifteen years. Contracted syphilis after having had tabetic symptoms for some years. Etiology: rheumatic influences.

Case VI.—A. K——, German, thirty-nine years of age, single, merchant, under observation from 1878 to 1881. Typical case of tabes. Etiology: venereal excesses and severe rheumatic influences. No syphilis proven.

Case VII.—J. d'A——, German, forty-four years of age, married, tobacco-dealer, under observation from 1870 to 1884. Atypical case of tabes of the lumbar type, non-progressive. Rheumatic influences and hard work. No syphilis.

Case VIII.—L. G——, German, thirty-two years of age, single, clerk, under observation during 1878. Atypical case. No syphilitic history. Early masturbation the predisposing cause.

Case IX.—H. F——, German, forty-two years of age, married, merchant, under observation from 1878 to 1883. Typical case; died in March, 1883, of complicating cardiac disease. Causes: early masturbation, later on venereal excess and rheumatic influences. No syphilis.

Case X.—A. H——, German, fifty-four years of age, under observation these fourteen years. Lumbar type, slowly progressive, almost stationary of late. Causes: mainly venereal excesses. No syphilis.

Case XI.—S. M——, German, forty years of age married, under observation since 1879. Atypical case of lumbar spinal type. Rheumatic influences only.

Case XII.—L. H——, German, forty-five years of age, married, merchant, seen in 1881. Atypical case of the

lumbar type, slowly progressive. Early masturbation and perhaps venereal excesses.

CASE XIII.—E. V——, American, forty-two years of age, married, merchant, from 1883 to 1884. Typical case of the cerebro-spinal type. Etiology: syphilis and rheumatic influences. Improvement by specific treatment.

CASE XIV.—F. B——, German, thirty-six years of age, single, mechanic. Atypical case. Seen in 1879. No cause elicited.

CASE XV.—F. C——, Italian, forty years of age, married, merchant, from 1882 to 1883. Typical but slowly progressive case of the lumbar type. Had syphilis about twenty years ago of a mild type, and has been guilty of venereal excesses for many years. Specific treatment had no effect, but improved by galvanic and hydriatic treatment.

CASE XVI.—A. M——, American, thirty-eight years of age, single, notary, from 1883 to 1884. Typical case of eight years' standing. Early masturbation, and later on prolonged physical exertions. No syphilis. Some improvement by galvanic and hydriatic treatment.

CASE XVII.—J. W——, fifty-five years of age, German, married, tradesman. Typical case of tabes, involving finally the entire cerebro-spinal organ, and terminating in dementia paralytica, of which patient died a year ago. No doubt that syphilis was the principal cause in this case.

Of the above 17 cases syphilis was certainly the principal predisposing cause in 3, *i.e.*, 18 per cent., and in 2 more of them it has probably been an important etiological factor.

Conclusions.—First.—There is not sufficient evidence to show that syphilis may be the direct cause of the typical form of locomotor ataxia, *i.e.*, posterior sclerosis of the cord.

Second.—There is proof, and plenty of it, that syphilis produces certain lesions in the cord and its meninges as readily, if not as frequently, as in the brain. These lesions may be, and often are, followed by symptoms of (atypical) tabes. They are generally relieved by prompt and energetic specific treatment, but rarely cured.

Third.—Experience has shown me that the tendency of the syphilitic virus to produce lesions in the nerve-centres occurs the sooner, the less its action is interfered with by judicious and prolonged treatment, although old cases of syphilis are, *cæteris paribus*, more apt to develop symptoms of neurosis than those of more recent date.

Fourth.—As it has been shown by all observers that syphilitic lesions of the central nervous system once established are seldom really cured by specific remedies, we have additional reason to insist upon timely and long-continued treatment. It is also our duty to impart such information of the nature of the disease to the patient as will lead him to keep a strict and judicious watch over himself, and have suspicious symptoms attended to as early as possible.

Fifth.—I believe a properly graded inunction-cure with unguentum hydrargyri in most cases of syphilis to be the best means of reducing the disease to early and harmless latency.

NEW YORK, March 20, 1884.

THE "BUBBLE TEST" FOR ALBUMEN.—Dr. H. Lathrop, of Cooperstown, N. Y., writes: "In reply to Dr. Neal's inquiry in your issue of January 5th, I wish to say that Professor J. K. Mitchell, of Philadelphia, in his clinical lectures of thirty years ago, frequently called attention to the characteristic of albuminous urine referred to by him; and also remarked that if poured rapidly from a phial the whole interior would be occupied by large bubbles, which would continue a longer or shorter time as the albumen was more or less abundant. As an early symptom it is often convenient in the hurry of general practice; but should scarcely be relied upon as an infallible diagnosis."

PRACTICAL OBSERVATIONS ON THE HUMAN EAR AND ITS DISEASES, WITH ILLUSTRATIVE CASES.

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I.—THE EXTERNAL EAR.

(Continued from Vol. xxiv., p. 244.)

Significance of the configuration of the auricle.—Much importance has been assigned by writers, both ancient and modern, to the size and configuration of the auricle, and the angle of its attachment to the head. Especially have alienists been led to believe that idiots and imbeciles possess in many instances anomalously developed ears; but while this, to a certain extent, is undeniably true, the subject brings up the question of the ear's morphology, and, therefore, the discussion belongs more properly to congenital defects of the exterior ear. That the external ears of some perfectly sane individuals are not ornate in character is also quite true, but peculiar ears cannot always be regarded as significant of mental conditions, since the insane themselves are found to possess every variety as regards size, shape, etc. The observations of physiognomists in regard to the significance of the ears in determining the character of persons seems to hold true to a certain extent, but my own views, founded on observations among people of different nationalities, are that the auricle maintains a very constant configuration in individuals of similar physical development, irrespective of place of birth. From a large clinical experience, however, I cannot resist the corollary that between a disordered brain—and perhaps other diseased organs as well—and the ear's diseases there exists very often a seeming correlation by means of which the ear is dominated physiologically, and the theory lends plausibility to some very interesting surmises on the part of ancient writers, to which allusion will directly be made.

Charles Darwin, in his untiring search for evidences of the truth of evolution doctrine, of which he was himself the most able of all its advocates, availed himself, in pointing out the morphological correspondence between man and monkey, of the frequent occurrence of an irregularity in the superior border of the helix of the ear of man corresponding with the more unvarying pointed ear in some species of monkeys. This cannot, however, in man, be construed to indicate the existence of any mental defect.

The physiological functions of the exterior ear, especially of the auricle.—Those special functions of the exterior ear, the collection of undulatory sound movements approaching the conductive mechanism and the regulation of drum-head tension, which have been already considered, cannot become too familiar to the mind, since the drum-head comprises the power, when set in motion by sound-waves, on which normal hearing depends, and its efficiency is impaired to a greater or less extent by abnormities of the exterior parts.

The nervous relationship of the exterior ear.—Upon a knowledge of the relations of the ear with other parts by means of the nerves, and a study of the *modus operandi* of the phenomena sometimes thus brought about, we may more clearly understand the etiology and pathology of the diseases to which the organ is subject, and consequently adopt a rational mode of treatment. The knowledge we now possess respecting reflex action in general has been of slow growth, the result of repeated clinical observations conducted side by side with physiological experiment, and although still incomplete it has come to be recognized by many as one of the important causative factors in a large number of the diseases affecting different parts of the body.

In order to understand this sympathetic influence on an organ so richly supplied with nerves as is the ear, it will be necessary to consider the subject some-

what in detail. Attention, then, will first be given to the influence probably exerted on the exterior ear through the action of the sympathetic nerves. An exceedingly instructive example, although perhaps less impressive because of its frequent occurrence, is thus offered by the familiar phenomenon of vascular engorgement in the auricle from the play of the emotions, some persons experiencing "burning of the ears" quite as frequently as others are found to "blush" under certain mental impressions; and, indeed, both phenomena sometimes manifest themselves simultaneously. In contemplating these occurrences we are at once greatly impressed with the profuseness of the blood supply of the external ear, as well as with the abundance of its vaso-motor nerves, and it is owing to this fact that mental excitement or nerve-transmitted disturbances from regions remote from the ear may, through reflex action, give rise with such quickness to aural flushing. It was doubtlessly owing to the observation of these and probably other phenomena in the past that led to the asseveration that the ear possessed attributes of greater interest even than some of its other known functions. Thus in ancient times was the belief entertained that sexual limitation was attainable through ablation of the pinna, and the authorities of these early but dimly lighted days, therefore, sought to prevent the perpetration of crime by cutting off the ears of their criminals lest they should transmit their traits to their own unfortunate offspring.[1]

The Scythians, who were imbued with this belief, had recourse to bleeding behind the ears as a means of inducing sterility; and in more recent times Ambrose Paré, the father of military surgery, as he is fondly called, mentions in his work that the painfulness of carious teeth may be allayed by anodynes applied in the external auditory canal, a custom not altogether in disuse even at the present day. Researches into the field of ancient medical literature will be amply rewarded by numerous other evidences of the importance attached to the ear's relations with other organs by the fathers in medicine, but the above may suffice to show that the guidance of unexplained phenomena sometimes led to successful treatment.

The external ear's relation to the brain.—It is a well-attested fact that the auricle, especially in lunatics, is sometimes the seat of grave lesions consecutive to or accompanying, *pari passu*, impairment of the mental functions; in other words, a disordered mental state assumes, under certain circumstances, a causative relation to aural disease. Clinical and physiological researches have combined in furnishing a vast amount of confirmatory evidence respecting the interesting relations that exist between the brain and the ear. Among the earliest, if not the very first, indeed, to avail himself of the physiological knowledge then existing on this subject was, I believe, Dr. Achille Foville, who suggested the sympathetic origin of disease of the external ear. Foville, in a paper [2] published in 1859, thus alludes to the experiments of M. Bernard, who found that a predisposition to sanguineous tumors of the ears could be brought about in animals by subjecting them to section of the great sympathetic.

Subsequently, Dr. Brown-Séquard, in speaking of the production of cerebral symptoms as a conseqnence of injuries to the auditory nerve, says: "I have found that in batrachia the slightest wound of the auditory nerve suffices to produce the following phenomena: 1, a peculiar state of the limb of the opposite side; . . . 2, marked hyperæmia of the skin, both lasting during the life of the animal. This nerve in batrachia is almost as sensitive as the fifth pair." [3]

[1] Sedgwick, Med. Chir. Rev., vol. 2, p. 211, 1861.

[2] Vide Sanguineous Tumors of the Pavilion of the Ear in the Insane. Annales Medico-Psychologiques, July, 1859 (Am. J. of Insanity, vol. 16, 1859-60).

[3] (1) M. Mennière: On a Peculiar Form of Severe Deafness, Depending upon a Lesion of the Internal Ear, B. I.; and (2) Dr. Brown-Séquard: Comptes Rendus, January 8, 1861, and Gaz. Hebd. de Méd. et Chir., Januauy 25, 1861. (Ranking's Abstract, vol. 2, p. 152, 1861).

This author believes, also, that the auditory nerve has the power, reversely, by reflex action to produce convulsions, vertigo, and other symptoms of disturbed cephalic functions. Thus cold injections thrown into the ear or sudden sounds are liable to give rise to these phenomena in all nervous or feeble persons. And, inasmuch as these symptoms may all occur in healthy brains, they can only be regarded as sympathetic or reflex, and as excited by lesions of the nerve of hearing. Still pursuing this line of inquiry, M. Brown-Séquard at a later date [1] draws attention to the remarkable fact that dry gangrene of the ear constantly occurred on section of the restiform bodies. The precise part of the restiform body excited in order to produce hemorrhage and sphacelus was the nib of the calamus scriptorius. It is a well-known fact that the hypoglossal nerve and the fifth pair take their origin in the neighborhood of the calamus scriptorius. The writer pointed to the strict analogy which exists in a great number of cases between the phenomena determined experimentally in animals and those which are observed clinically in man, thus confirming the observations of Foville above cited. Other curious researches have also been made by M. Brown-Séquard. Thus he has noted changes in the shape of the ear in animals born of parents in which such a change was the effect of a division of the cervical sympathetic nerve.[2] And furthermore, hemorrhage and dry gangrene of the ears occurred in animals born of parents in which these ear alterations had been caused by an injury to the restiform body near the nib of the calamus. The animals on which these experiments were made were guinea-pigs.

The external ear's nervous relations with regions other than the brain.—While physiological experimentation was thus going on, other observers in the field of clinical medicine were not behindhand in availing themselves of the significant suggestions thus thrown out. About this time Mr. Hilton, Surgeon to Guy's Hospital, was afforded an unusually favorable opportunity to study a case which further confirmed the belief of physicans in the intimate sympathetic relationship between the nervous centres and the ear.

FIG. 1.—Sketch of External Ear, Showing the Distribution of the Fifth Cerebral Nerve, and the Second Cervical Nerve upon it (Hilton). *c*, the upper part of the ear, supplied by the auriculo-temporal branch of the fifth nerve; *d*, auditory nerve, supplied by the same fifth nerve; *b*, the part of the ear supplied by the great auricular.

The case which seemed to support the hypothesis of this important factor in some of the affections to which the ear is subject, and in which Mr. Hilton studied the precise distribution of the sensitive nerves supplying the exterior auditory apparatus, occurred in a man where the auricular branch of the second cervical nerve had been divided. He found that when pricking with a needle over the whole auricular surface in this case there was complete loss of sensation over the posterior and inferior portion which is supplied by this nerve, while the superior and anterior portion, which is supplied by the fifth cerebral nerve, retained its sensibility. The functions of the fifth cranial nerve, a branch of which supplies the superior portion of the auricle, are, perhaps, much more liable to disturbances than are those of the second cervical nerve, and we may thus find an explanation for the nutritive changes in the auricle in subjects of hæmatoma auris during impairment of the mental functions. The nutritive changes in diseases of

[1] Dry Gangrene of the Auricle from Injury to the Restiform Bodies. Lancet vol. 1, p. 515, 1869.

[2] On the Hereditary Transmission of the Effects of Certain Injuries to the Nervous System, Lancet, vol. 1, p. 7, 1875.

the external ear, however, do not exclusively arise from the transmission of mental excitation through the nerves, since it is probable that in peripheral irritation affecting the fifth pair of nerves, as where the dental filaments of either maxillary branch are acted on by diseased teeth, a similar effect on the ear is liable to take place. The morbid effects of the more peripheric influences, however, are brought about through several distinct channels of communication, none of which should be overlooked when the etiology of aural disease is obscure. We thus find that the effects of nasal, pharyngeal, and palatal disease manifest themselves in the ear through nervous branches from those regions which pass into Meckel's ganglion, while lingual and laryngeal influences find a communication through the petrous ganglion of the glossopharyngeal. The genito-urinary organs even may exert an influence through the sympathetic system, a branch of which latter goes from the carotid plexus to Jacobson's nerve; the heart, through the superior, middle, and inferior cardiac nerves, as well as through the cardiac branches of the pneumogastric nerve, and the gastric and pulmonary organs, by means of the pneumogastric nerve and its connection with the petrous ganglion. With these numerous and intimate connections with other parts of the body, we may expect that, under favoring conditions, the disorders of any part may be the means of propagating disturbing influences toward the ear. Indeed, the writer's own experience in the treatment of ear diseases has convinced him that scarcely any organ of the body can suffer serious derangement without implicating some of the other organs, including frequently the ear. The recognition of nervous influences in exterior ear affections, as well as in middle-ear troubles, will doubtlessly enable the practitioner to trace the origin and course of aural maladies, which would otherwise be difficult of diagnosis and prognosis, and their treatment would in consequence be much more successful.

LACING UP WOUNDS.—Dr. A. B. Frazee, of Elbridge, N. Y., referring to the subject of traction sutures (MEDICAL RECORD, September 22, 1883), sends a description of the method which he employs. He says: "I take two pieces of strong adhesive plaster (Meade's plaster is the best I know of for my purpose) as long as the cut to be drawn together, and as broad as circumstances will allow, and, after folding back the edges one-fourth inch that are to be next the cut, I fasten ordinary dress-hooks, which are sold at the dry-goods stores, along the folded edges at regular intervals. Then, after drying the skin, I apply the plasters each side of the wound, a little distance from the edges, with the hooks opposite one another, and with a strong thread lace up the wound like a glove. The advantages of this are: 1. The thread can be loosened or tightened from day to day, thus keeping the edges in apposition while allowing for swelling, etc. 2. The wound is accessible and can be cleaned and dressed very easily. 3. In many cases sutures will not be needed at all, thus avoiding the irritation they cause, and the scar. 4. If sutures are used to insure more perfect apposition, the strain is taken off them and they will irritate less in consequence. 5. The plasters will hold much longer than sutures, will pull more evenly, and bear greater tension without yielding. The hooks can be sewed to the plaster, but in most cases a more convenient way of fastening them on is the following: Prepare the hooks by turning the ends of the wire out, so as to be at right angles with the hook. Then, before tearing the cloth off the plaster, fold it back half an inch and with a penknife cut through the two thicknesses parallel with the edge where the hooks are to be, then tear off the facing-cloth and pass the hooks through the slits. The cutting weakens the plaster somewhat, and if much traction is to be made it is better to sew the hooks on."

Progress of Medical Science.

NEURALGIC ACCOMPANIMENTS OF LESIONS OF THE PHARYNX.—Dr. Hack, of Freiburg (*Deutsche Med. Wochensch.*), delivered a lecture recently on neuralgic accompaniments of pharyngeal lesions. His attention was first called to the subject in connection with a patient on whom he had performed various cauterizing operations of the nose, on account of obstinate migraine and pains in the nape of the neck, and who, having been cured of those, came complaining of pains between the shoulders, and of a peculiar burning and tickling in the throat. He himself suggested that the throat should be burned for the cure of the pain, as his nose had been for the pains in the neck. The only lesion in the throat was a marked hyperæmia, and Dr. Hack, not considering himself justified in having recourse to cauterization for so slight an ailment, tried various remedies without any result, until he was at last persuaded to use the galvano-cautery. The pain between the shoulders at once subsided, and also the peculiar feeling in the throat. In another case that came under his care, the pain was in front, above the clavicles, and in the pharynx a little granulating tumor was visible, bleeding on the slightest touch. After the destruction of the tumor by the galvano-cautery, the pain over the clavicles completely disappeared, to return again with a slight return of the growth, which was easily removed in the same way. In a third case, hypertrophy of the inferior turbinated bone had caused stoppage of the nose and hyperæmia of the pharynx, with which was associated lancinating pain over the clavicles, which vanished in the same way when the hypertrophy was overcome. The neuralgic pains appear to accompany slight pharyngeal affections more often than severe ones, and always those which are hypertrophic in character rather than the atrophic. The neuralgia is sometimes in the form of sudden, sharp pains, of lightning rapidity; sometimes more diffused, and "rheumatic" in character. Their cause must remain to a great extent hypothetical, but it probably depends on the termination of the nerves in the pharyngeal mucous membrane.

PHOSPHORUS IN THE TREATMENT OF RACHITIS.—Dr. Kassowitz recommends phosphorus in small doses in rickets. He gives it in solution in cod-liver oil (1 to 1,000) in doses of one or two teaspoonfuls a day. Under this treatment he claims that the disease rapidly subsides. The fontanelles close, the softened bones become firm, the attacks of laryngismus stridulus are less frequent, and the general condition is much improved. He regards rachitis as due to an abnormally increased vascularization of the osteogenous tissues, which increase is controlled by minute doses of phosphorus.—*Centralblatt für Chirurgie*, January 26, 1884.

DIET IN TUBERCULOSIS.—In the *Berliner Klin. Wochenschrift* Dr. Bidder, of Berlin, concludes three articles on the relation between the alkalies of the food and the etiology of tuberculosis, by advocating a diet as free from potash salts as possible, but rich in common salt, as being a soda salt. He argues that the latter renders the tissues unfavorable to the development of the bacilli of tubercle, and that in young patients with tuberculous processes going on in the bones, joints, glands, lungs, etc., half a gramme to one gramme of common salt should be given three or four times daily with the food, according to age. If dislike to this be shown, benzoate of soda may be substituted in doses of 3 to 7½ grains. Indeed, the latter salt (known to be useful in the summer diarrhœa of children) is highly relished; it is aromatic in taste, and increases the appetite. Bidder thinks, moreover, that the well-known injurious influence of iodide of potassium upon tuberculosis or scrofulous processes is probably due not to the iodine but to the potash, which is replaced by soda in the stomach. The diet

should contain an excess of albumen, of fat, and of salt in the cases mentioned. The article concludes by a reference to rickets, in which a connection with tuberculosis is attempted to be proved. Rickets is said to be due to an excess of potash salts in the food as one cause of it.

THE FEVER OF GROWTH.—This affection, first described by Bonilly, in 1880, is characterized by a fever pursuing a specific course, and accompanied by pain and tenderness in the epiphyses of nearly all the long bones, and is followed by a period of very rapid growth of the individual. It may occur at any time between the fifth and twenty-first year. It is occasioned by excessive exercise, as long walks, standing for a considerable time, fatiguing gymnastic exercises, swimming, etc. Bonilly distinguishes three forms of the disease: 1, acute, with rapid course, the most common; 2, acute, but more protracted than the first; and 3, chronic or relapsing (*trainante*). Fever and tenderness of the bones are common to all these forms. The pain occupies the "juxta-epiphysal" zone, and is most commonly located in the lower ends of the femora, though all the long bones are not infrequently affected. The joints are not involved, as a rule, though sometimes serous effusions, more especially in the knees, are met with. The more rapid form runs its course in from twenty-four to thirty-six hours. The second variety may be of several days' duration, and may even be accompanied by typhoid symptoms, but its termination is always by a rapid return of temperature to the normal. The chronic form is characterized by a succession of attacks running along for weeks and months. The prognosis is favorable, though relapses are common. Quinine should be given during the attacks, and in the intervals all fatiguing bodily exercises should be avoided, while attention is directed to a building up of the general condition. The following case of growing fever is reported by Dr. Guillier: A child, eleven years old, of rather delicate constitution, was taken suddenly ill with convulsions, high fever, and pain in all the extremities. There was tenderness over the epiphyses of the femur, tibia, and humerus on either side. A slight improvement on the next day was followed by an increase in all the symptoms in the evening. Under antipyretic treatment the fever subsided on the third day. After five weeks the child was able to leave the bed, though she was still very weak. During that time the height increased two and one-half inches.—*Centralblatt für Chirurgie*, January 26, 1884.

GONORRHŒAL ARTHRITIS.—Dr. F. Kammerer reports in the *Centralblatt für Chirurgie*, January 26, 1884, two cases of joint inflammation following gonorrhœa. The first case was that of a man, thirty-two years of age, who fell and sustained a compound fracture of the leg, necessitating amputation. Shortly after the operation the patient complained of pain in the knee of the other side. The joint became rapidly swollen, and was so exceedingly painful that it was decided to draw off the fluid. A large quantity of a sero-purulent fluid was removed, which was found to contain numerous micrococci exactly resembling the organisms found by Neisser in gonorrhœal secretion. The patient denied having had gonorrhœa, but examination showed a reddened meatus and a slight urethral discharge. The fluid reaccumulated in the joint and was again drawn off, but this time contained no micro-organisms. The second case was in a woman, twenty-two years old, suffering from gonorrhœa. The knee was painful and greatly swollen. The fluid was removed on the fifth day, but no micrococci were found. In two other cases of gonorrhœal rheumatism reported by Petrone (*Centralblatt für Chirurgie*, September 15, 1883) the same organisms were found in the effused fluid. Kraske, Brieger, and Ehrlich have each reported cases of gonorrhœal urethritis in which, however, they could discover no bacteria. Notwithstanding these negative results, Kammerer regards his first case and the two reported by Petrone as proving almost conclusively that the joint affections in gonorrhœa are due to the migration of bacteria from the urethra. This migration takes place through the channels of the blood circulation. Petrone, indeed, found the characteristic micro-organisms in the blood itself. The absence of the cocci in some of the recorded cases might be explained by the time at which the examination was made, since in all the cases in which they were found the fluid was withdrawn very soon after the exudation had occurred. Kammerer suggests that the organisms die very shortly after the inflammation is excited, as in other pathological processes dependent upon the presence of micrococci the organisms are always found in greatest numbers at the commencement of the disease.

OPERATIONS UPON ABDOMINAL CYSTS.—Dr. J. Landau (*Centralbl. für de Med. Wiss.*) advances his method of treating abdominal cysts as possessing the advantage that a multiplicity of cysts, or the presence of adhesions, do not give rise to difficulties in operating. The plan adopted by him is to make a vertical incision through the integuments over the cyst as high as the border of the ribs, an exploratory puncture having first been made. The peritoneum is then to be fixed to the abdominal walls by sutures. The cyst being drawn or pressed forward by an assistant, a fine canula is inserted to evacuate the fluid. The distended cyst becomes flaccid, and can be drawn outward; its slackened walls can then be fixed by sutures to the integuments. The remaining fluid can then be emptied, or is expelled by the respiratory action; none can escape into the peritoneal cavity. The cavity of the cyst becomes obliterated by granulation.

BROMOFORM.—In a communication addressed to the Vienna Medical Society, at its session on January 11, 1884 (*Wiener Medicinische Wochenschrift*). Dr. von Horoch presented some facts concerning the anæsthetic value of bromoform. This substance, analogous in composition to iodoform and chloroform, is an oily, transparent liquid, of an agreeable odor and sweetish taste. It is sparingly soluble in cold water, but dissolves readily in warm water and in ether, has a specific gravity of 2.9, and boils at 151° C. The drug was given to animals by inhalation, subcutaneous injection, and by the mouth. In all the experiments it was shown to possess remarkable anæsthetic and hypnotic properties. The anæsthesia produced by inhalation could be maintained for any desired length of time without producing any alarming or unpleasant symptoms in respect either to respiration or the action of the heart. The primary stage of excitement was less marked than is the case when chloroform is administered, and there was no nausea nor vomiting. When employed in a one per cent. solution it possesses strong antiseptic properties. Very profound and long-continued narcosis is produced by subcutaneous injection. In a rabbit an injection of fifteen minims caused a deep sleep for forty-eight hours. Dr. v. Horoch employed bromoform also in man. It was used in three cases of surgical operation, one a double osteotomy, without any unpleasant effects being produced. Professor Albert stated that the anæsthesia observed after inhalation of bromoform was very similar to that caused by chloroform. Its effects, however, are less transient, the narcosis is longer continued, children when under the influence of bromoform will, upon awaking, eat with relish, but fall asleep again immediately. In other respects its action seems to be somewhat less powerful than that of chloroform, especially as regards the heart and respiration, upon which it appears to exert no injurious effect. One disadvantage, however, which it possesses is an irritant effect upon the mucous membranes. The conjunctiva and the nasal and laryngeal membranes are all considerably irritated when bromoform is given by inhalation. This effect, Professor Albert suggested, might possibly be obviated by mixture with some other substance.

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THE REFORM OF THE MEDICAL SERVICE ON PASSENGER STEAMERS.

ALREADY a bill is before Congress, introduced by General Slocum, which aims at establishing the reform of the medical service on passenger steamers, so earnestly advocated by this journal. The full text of the bill has not yet reached us, but we are satisfied from the abstract in hand that, subject to certain modifications, the measure is one meriting the gratitude of the public and the cordial support of the medical profession. It enacts that vessels carrying passengers to the United States shall have on board a second or assistant surgeon whenever the number of passengers and crew exceed six hundred; to which might well be added the compulsory employment of a competent dispenser, and for every three hundred passengers at least one hospital steward and trained nurse. It further provides that there shall be two hospitals—one for men and the other for women—each to be eighteen square feet for every fifty persons on board. This clause needs alteration. Assuming the height between decks to be about seven feet, and allowing for displacement by the patient's body, bed, and the necessary fittings, a hospital of eighteen superficial feet would scarce allow one hundred cubic feet for respiratory purposes—manifestly insufficient for even one healthy person.

On the other hand, when the passengers and crew amounted to fifteen hundred persons, as is quite usual on the larger steamers, this clause would require that 1,080 square feet of deck room be assigned for hospital purposes. The commercial cupidity which in face of repeated warnings maintains a system equally disgraceful and disastrous deserves small consideration at the hands of Congress, and none from us; at the same time we are prepared to respect every interest involved, and we wish to demand no more than is absolutely necessary for the health of passengers and the protection of the communities among whom they are about to commingle.

With this view we would suggest the following:

That every steamer carrying from twenty to one hundred passengers, not more than twenty-five of whom shall be under twelve years of age, shall provide two hospitals, located upon the main or upper deck, and toward the stern of the vessel, each of which shall contain not less than 350 cubic feet of clear breathing space; and that for every additional fifty females, or twenty-five children under twelve years of age, 250 cubic feet shall be added, up to a maximum of 2,500 cubic feet; and that for every additional fifty males over twelve years of age, 50 cubic feet shall be added, up to a maximum of 1,000 cubic feet. It should also be insisted on that this space be left entirely at the disposal of the medical officer, and devoted to no other purpose than the accommodation of the sick. The bill further provides that the medical officer shall act as sanitary inspector. In this we entirely coincide; but it is well to remember a point constantly insisted upon by Dr. Irwin, and without attention to which this clause would be simply a dead letter. So long as the surgeon is employed and dismissed as at present, in the interest of the shipowner, he can never be an efficient sanitary officer. It not unfrequently happens that upon these crowded steamers the health interests of the passengers comes into direct opposition with the money interests of the owners; and wherefore the purpose of United States law declaring the ship surgeon a sanitary inspector, unless it is prepared to protect him in the discharge of the functions pertaining to that office?

PROFESSOR HUXLEY'S PLAN FOR A CONJOINT EXAMINING BOARD.

IT would be a great surprise to American readers to find such a subject as medical legislation discussed in popular monthlies. In England, however, this is being done, and it must be inferred that the matter in that country has a more than technical interest. In the recent issues of the *Nineteenth Century* and of *Blackwood's Magazine* the medical bill now before Parliament has received extended criticism at the hands of Professor Huxley and of an anonymous Conservative writer. As the situation of medical affairs in England resembles somewhat that in this and other States, our medical statesmen can possibly learn something from a study of the progress of medical reform across the water. The United States has about one hundred and twenty, England nineteen licensing and teaching bodies. It is desired by the great mass of the profession in both countries that the licensing bodies should be made fewer in number, and that they should be independent and free from any possible bias.

To secure this end the Parliamentary bill creates three Boards of Examiners—one for England, Scotland, and Ireland respectively. These Boards will establish a minimum qualification, and prevent the present practice of students who fear to fail in England going to Scotland or Ireland. This is the main and most radical feature in the Parliamentary bill.

Professor Huxley is the stalwart opponent of this plan, and defends his views with much plausibility in the *Nineteenth Century*. He has a scheme of his own, which is, he thinks, very simple and will suffice to secure all the reform needed. It consists, so far as the point under consideration is concerned, of having conjoint medical examiners appointed, representing no college, who shall examine the students and sign the licenses in connection with the professors in the schools.

A similar scheme applied in this State would be the creation of a medical faculty whose members should have the power to attend the college examinations and sign the diplomas with the professors. This is a step in ad-

vance of the plan proposed in the so-called "College Bill," and its practicability is at least worthy of consideration.

At the first glance it certainly seems a physical impossibility for such a faculty to do the work proposed. We have thirteen or fourteen colleges in New York State, and the majority of the Commencements occur within the same fortnight. The conjoint examiners, therefore, must divide up in order to do their work properly. Very great care would also have to be exercised in order to prevent undue influences affecting the judgment of the gentlemen who would thus assist in the examinations. Finally, it has to be remembered that probably the majority of the twelve hundred graduates from New York colleges will not settle in this State, while, *per contra*, a considerable number of physicians who do settle here are graduates from institutions elsewhere.

RED HAIR AND PSYCHICAL STATES.

MEDICAL science progresses. It is pleasant to feel that the phrases which are usually uttered with platitudinous ease can sometimes be strenuously emphasized in the exalted conviction of their far-reaching significance. The world has revolved many thousands of times, blowing the torch of science into a continually brighter blaze. But not until the present year did the illuminating rays of scientific incandescence show to inquiring man the exact psychical significance of red hair.

Lest our readers think that we are trifling, we beg to say at once that in *Virchow's Archives*, Bd. 95, Heft 2, 1884, Dr. C. Reinhard, of the Friedrichsberg-Hamburg Insane Asylum reports facts which break a new path in science, and throw an auroral light upon the history of red-headed men.

In April, 1880, there was brought to the asylum in question an idiot boy aged eleven years. He was microcephalic, with small brow, large mouth and ears, light yellow hair and dull expression. He could not speak nor understand a word, though sight and hearing were normal. The legs and arms were atrophied and contractured.

This interesting creature was subject to periodical changes in his mental or rather emotional condition. For about a week he would be very excitable, crying, grunting, restless, and sleepless; his face would become red and turgid, the pulse fuller and the skin warm. This condition would gradually subside and he then entered a stuporose state.

Now it was very soon observed that during the states of excitement the hair changed from a light yellow to a golden red. On the other hand, in the stuporose state it changed back to yellow. This phenomenon was frequently and carefully observed, says Dr. Reinhard, and all sources of error excluded. There were no dyes or washes used, the hair was not falling out, and it was the same hair which underwent the periodical change in color.

Here, then, is an authenticated fact, showing that emotional excitement reddens the hair, while quietude and sleep tones down the primary color to a neutral tint. May one not suggest that isolation, repose, somnolence, and self-restraint will be better for a red-haired man than hair-dyes?

We should add that the patient subsequently died in his yellow hair. The autopsy revealed atrophy of the anterior horns of the spinal cord, microcephalia, hyperostosis cranii, and wide convolutions, while the cortex cerebri was of a pale green color. As green is the complement of red, the deep significance of this last finding will be apparent. We will not dilate upon it, however, lest it be thought that Dr. Reinhard used a serious publication like *Virchow's Archives* in which to utter things frivolous and trifling.

THE VALUE OF TARSOTOMY IN THE TREATMENT OF TALIPES.

THE operation of tarsotomy in inveterate club-foot has hitherto attracted but little attention in this country. A discussion took place recently in the Surgical Society of Paris upon the value of this operation in cases of inveterate talipes. Beauregard related several cases of old club-foot attended with great deformity, in which, after all other measures had failed, he performed osteotomy. Excellent results were obtained, the wounds healed readily and without any serious accidents. In the discussion which followed, despite the favorable issue in the cases cited, the great majority of the surgeons present declared themselves emphatically against the operation in children. Polaillon quoted the dictum of Guérin, that there is no deformity of this kind, except in talipes of the adult, which may not be corrected by means of tenotomy, syndesmotomy, and apparatus. Many, however, were of the opinion that tarsotomy is necessary in the case of adults afflicted with congenital club-foot, and it is probable that should the operation ever win for itself an established position, it will be reserved entirely for these inveterate cases, more conservative measure being sufficient for the relief of any deformity of this nature in children. Some of the most enthusiastic advocates of the procedure—Boeckel, Rydygier, and others—proposed, indeed, to operate upon children as well as adults. They thought to recognize two forms of club-foot, a tendinous and an osseous one. The former, they asserted, was curable by the ordinary methods of manipulation, tenotomy, and the like. But for the correction of the latter osteotomy was necessary. In spite of these views held by an enthusiastic minority, the ruling opinion of continental surgery seems to be that while we have in tarsotomy an operation of undoubted value, its general adoption in the treatment of club-foot, to the exclusion of more conservative and milder measures, especially in the case of children, would mean retrogression rather than advancement.

THE NEW BANTINGISM.

A LITTLE green-covered book, entitled "Corpulence and its Treatment on Physiological Principles," is being extensively distributed among the news-stands of this and other cities. It is written by Dr. William Ebstein, and translated and "adapted for popular reading" by an ingenuous and philanthropic physician of this city. It is always a matter of much delicacy if not danger to lay before the public a new curative method. For one must be sure the method is right, sure the public will understand it, and confident that if tried by the laity it will do no harm, since, of those sufferers that read, not

two per cent. go to their physicians, nor one per cent. to the translator.

Dr. Ebstein's method of treating corpulence has been generally noticed in medical journals and must be somewhat familiar to the profession. It is based, as he says, upon physiological principles, which are, first, that superfluous fat must be got rid of very slowly; second, that the anti-fat regimen must be kept up all one's life; third, that this anti-fat diet should contain considerable fat, a moderate amount of proteids, and very little starch and sugar.

The main novelty in Ebstein's plan (for everything else has been said before) is the addition of fat and decrease of proteids in the diet. This difference in diets can best be seen in the following table made by Professor Voit (*Centralblatt f. Klinische Medicin*, No. 8, 1884):

Diet of—	Albumen in grms.	Fat.	Carbo-hydrates.
Healthy workman	118	56	500
Physician	127	89	362
Banting	172	8	81
Ebstein's diet	102	85	47

The prevailing theory of physiological chemists now is that the fats of the body are derived largely from the proteid or albuminous bodies through partial oxidization of the same. Feeding with starch, sugar, or fat increases the fat in the body because these foods are easily oxidized. By consuming a large amount of oxygen the albumen receives less and breaks down into fat instead of more completely oxidized products like urea and its allies. In fine, carbo-hydrates and fats protect the albumen and cause fatty deposits therefrom.

Ebstein accepts this theory in all respects except that he denies the protective power referred to, so far as regards fatty food, and says it does not favor the deposit of fat out of albumen.

It appears to us that as yet Ebstein has furnished no arguments in experiment or experience, which prove his view. And, furthermore, so distinguished an authority as Professor Carl Voit has published an argument in which he denies that Ebstein's treatment is based on physiological principles.

While no one will refuse, therefore, to give Ebstein's method of treating corpulence a fair trial, or will deny the value of his clinical results, it is not yet time to announce that we have a new and surer remedy for corpulence "based on physiological principles."

THE QUESTION OF MIDWIVES.

The New York County Medical Society did well to refuse an endorsement at the present time of the bill to establish a college of midwifery. The profession here has had an unpleasant experience with such institutions, and is not ready just now to give its support to them.

Because one college of midwifery has turned out badly, however, it does not follow that we must educate no midwives; nor should physicians look upon this class as one not adapted to our American civilization. Experience through many years and in many countries has shown that midwives exercise a useful function in society. If American doctors denounce and try to exclude them from recognition, the action will be attributed to selfish motives and a trades-union spirit.

Midwives, carefully trained and, in particular, taught early to recognize complications and abnormal labors, and to call in help on such occasions, will be useful adjuncts to the profession, and will furnish a needed service to the poorer classes.

Midwives do and will exist. The medical profession had best, therefore, see that they be properly licensed and educated, so that they may be made more skilful and responsible. This, we believe, our County or State Society will in time undertake to do.

A NEW HONOR TO PROF. FORDYCE BARKER.

The many personal friends of the distinguished president of the New York Academy of Medicine, Dr. Fordyce Barker, and the profession generally, will join us in congratulating him on the eve of his receiving another high honor from abroad. The Edinburgh University, on the occasion of its tercentenary anniversary, has decided to confer a limited number of honorary degrees upon distinguished foreigners. Dr. Barker has been invited to attend the convocation and receive the degree of LL.D. from that university. He sailed accordingly on Wednesday last.

No honor which this ancient university can confer will be more worthily bestowed or more honestly earned. The profession of this city and country have more reasons than one for being proud of the subject of this rare distinction.

News of the Week.

The Bill to Regulate Medical Practice in Maryland has been killed.

Medical Tramps and Medical Confidence Men.—We are constantly hearing of men, claiming to be doctors, who are travelling around the country and swindling the profession by obtaining money under false pretences. It is so easy to avoid these swindlers by refusing to help them under any circumstances that we are tired of calling attention to the fact. A physician who has to work hard for his money ought not to be ready to part with it to the first beggar who drops into his office with the story that he has lost his pocket-book, his railroad ticket, his satchel, or his check-book. If such a man has friends at home he can obtain money-orders by telegraph, and if he has none such at home he does not deserve any abroad. The moment a strange man asks for money because he is a suffering doctor, that moment he should be looked upon as a pretender, a fraud, and a swindler. Every sensible medical man knows this, but is willing to be gulled notwithstanding. We are aware that doctors are generally soft-hearted, but there is no reason why this qualification of tenderness should find expression in any higher organ of their economy.

Dr. James A. Stewart has been appointed Health Commissioner of Baltimore, and entered on his office March 1st, in place of Dr. George W. Benson. Dr. James McShane has been reappointed Assistant Health Commissioner.

THE LATEST TRICK IN PROFESSIONAL ADVERTISING IN THIS CITY is to write, or have written, a biographical sketch of one's self for some obscure family paper, pay for an extra edition, and have specimen copies of the same distributed upon the thoroughfares. Of course, it is not to be presumed that the principals have anything directly to do with the matter. And even if they had, free personal advertising is not in such bad odor as before the distinguished editor of the Association journal published his very liberal views on its propriety. It is, in fact, another way of publishing professional cards, announcing specialties and office hours. Medical colleges, dispensaries, public and private, do it for the good of the suffering poor, and why should individual doctors be debarred of a like privilege when they wish to help themselves? It amounts to the same thing in the end. The only pity is that the young and struggling doctor, who is anxious to earn his bread by "the sweat of his brow," does not dare to let the people know of the fact that he is willing and ready for business. The only way left to him, apparently, is to hire a room in a tenement house, start a private dispensary, make himself the chief medical adviser thereof, and advertise with the laudable anxiety of helping the sick poor, who are so notoriously neglected in this great city. It is not much more difficult to start a dispensary than it is to found a medical college, and, considering the need for both not only here but elsewhere, there are abundant opportunities for using printer's ink legitimately and profitably. The other method, of trying the biographical scheme, is not to be thought of by men who have no reputation and who are not old hands in the business. This requires experience as well as everything else.

MEDICAL VIENNA.—At the meeting of the Royal Society of Physicians of Vienna, on March 9th, Professor v. Basch made a communication upon the subject of the "Innervation of the Intestine," based upon experiments made by Drs. Fellner and Ehrmann. These showed that the longitudinal and circular fibres of the muscular coat have each inhibitory and motor nerves. The vagus sends motor fibres to the circular muscles and inhibitory fibres to the longitudinal muscles. The splanchnic, on the other hand, is the motor nerve for the longitudinal fibres, and the inhibitory nerve for the circular fibres. At the meeting of the Vienna Doctoren-Kollegium, March 3d, Professor Schnitzler read a paper on the "Therapy of Tuberculosis," but presented nothing new.

MEDICAL BERLIN.—At the meeting of the Society for Internal Medicine, on March 3d, Dr. Bernhardt reported a case of spontaneous hydrophobia. Dr. Pedell showed a case of stenosis of the larynx after typhus. Dr. Guttman reported a case of diaphragmatic hernia in a man aged forty-two years, not diagnosed until after death. Among 290 cases, only six times has the diagnosis been made. Some general remarks upon the symptomatology and physical signs were made.

MEDICAL PARIS.—At a meeting of the Académie de Médecine, March 11, 1884, M. Mercier read, in his name and that of M. Garrigou-Desarènes, a note upon the "Treatment of Strictures of the Eustachian Tube by Electrolysis." The operation consisted in passing a fine silver sound into the Eustachian tube, and a small olive-shaped electrode into the external auditory meatus. A feeble current is then passed, the sound is gradually pushed on, and the stricture disappears. In the Société de Chirurgie, at its meeting March 13th, a discussion took place upon the pathology of spina bifida. M. Lannelongue showed that some cases were due to cicatricial adhesions, others to arrest of development. M. Terrier reported a case of Battey's operation for hysteria. M. Vulpian presented a patient with a naso-pharyngeal polypus of extraordinary size, and asked advice as to the question of operating. Interstitial injections of Piazza's solution had been made without doing any good. The galvano-cautery and ligature of the carotid were measures suggested.

THE CHICAGO MEDICAL COLLEGE held its Twenty-fifth Annual Commencement on March 25th, graduating a large class.

A CHAIR OF PATHOLOGY has been created at the University of Cambridge, and a Professor will be elected in May.

EDINBURGH UNIVERSITY AND ITS TERCENTENARY.—On April 17, 1884, the University of Edinburgh celebrates its third centennial anniversary. On this occasion the chief institutions of learning throughout the world will be represented by delegates. Several American colleges are included in the list. It is to be remembered that the fame of Edinburgh is very largely due to the excellence of its medical teaching. The roll of university professors includes the name of Charles Bell, of whom, says *Science*, the story is told that when he visited the class-room of Roux in Paris, Roux dismissed the class, saying, "Sufficient, gentlemen: you have seen Charles Bell." Another university professor was Sir James Y. Simpson, whose bold introduction of chloroform as an anæsthetic is world-renowned. When a Scotchman was presented at the court of Denmark, the king said, "You come from Edinburgh? Ah! Sir Simpson was of Edinburgh." Simpson himself said he was more interested in having delivered a woman without pain than in having been made physician to the queen. At an earlier date the fame of William Cullen was wide-spread. Among the teachers of non-medical sciences, the names of Black, John Playfair, Robert Jameson, David Brewster, Edward Forbes, James D. Forbes, and Wyville Thomson are those which come first to mind; while in mental and moral science the Scotch philosophers, Dugald Stewart, Thomas Brown, and Sir William Hamilton, are not likely to be forgotten. A part of Edinburgh's medical fame is due also to its "extra-mural" teachers.

THE ENGLISH VIEW OF AN AMERICAN'S PEDESTRIAN FEAT.—We can hardly understand the astonishment and interest which the English press exhibit over the fact demonstrated by Weston, that the body can sustain itself under severe work better without alcohol. To Americans, who drink a great deal of water, this fact has long been a commonplace.

The *Medical Press and Circular* goes off in the following strain: "Never, in the history of the Temperance movement, has the value of abstinence from alcoholic or

other artificial aids been so signally demonstrated as during the past four months, when, without any preliminary training, the pedestrian Weston has, for one hundred successive days (excluding Sundays and Christmas Day) walked fifty miles a day, until, on Saturday evening last, he completed the number—five thousand—which he had undertaken to accomplish in the time specified.

"During the final week, when the walking took place in London, at the Victoria Coffee Palace, a complete and exhaustive series of observations were made by Dr. Edwin C. Green, delegated by the Medical Temperance Association for that purpose. The sphygmograph, clinical thermometer, dynamometer, and spirometer were all made to contribute their valuable revelations. The food and excreta were weighed, as was Weston himself—his height being taken before and after each day's walk. The urine, in view to the amount of urea, phosphates, etc., being estimated, was sent daily to Mr. A. Wynter Blyth. The results will be published in detail in due course; but it may here be stated that they were in the main eminently satisfactory. The vital capacity was not, perhaps, quite so great as we were prepared for, and the grip was what might have been expected from the pedestrian's comparatively slight physique. But the clinical thermometer and the sphygmograph proclaimed that the temperature and the pulse—both unerring indicators of abnormal states of health—were perfectly natural; indeed, the tracings with the former were typical of the most perfect health."

The Women's Medical College of Philadelphia held its annual Commencement on March 13th, and graduated a class of twenty-six.

The German Cholera Commission will soon go to Goalpara and Darjeeling, in India, to prosecute further studies. They will then return to Germany, but expect to be again in India next winter.

Quintuplets.—Dr. Reeves, of Wheeling, West Va., vouches for the following (*Columbus Medical Journal*): A married woman, living in Moundsville, West Va., gave birth to five children—two boys and three girls. They were perfectly formed, and weighed from four pounds to two ounces. Only one of the number weighed four pounds, while the remainder ranged from two ounces up. They were still-born. The mother at last reports was doing well.

Limiting the Height of Houses.—A bill has been introduced into the State Assembly, of which one section reads as follows: Sec. 2. Such height, measured from the sidewalk line, and taken in all cases through the centre of the façade of the house to be erected, including attics, cornices, and mansards, shall not exceed seventy feet upon all streets and avenues not exceeding sixty feet in width, and eighty feet upon all streets and avenues exceeding sixty feet in width. The bill has been favorably reported upon. It resembles in the main the law in Paris.

A Bill to Regulate the Practice of Medicine and the Sale of Medicines in Utah was passed by the Legislature, but vetoed by the Governor, at the solicitation, as we are informed, of certain patent-medicine men.

Investigating the Tenements.—A bill has been introduced into the State Assembly appointing a commission to investigate and report upon the tenements and "slums" of New York City.

The New York Neurological Society held its annual meeting on April 1st, and elected Dr. Wm. J. Morton, President; Dr. E. C. Wendt, Secretary.

The Number of Medical Diplomas given in France and Germany.—While the United States generously bestows some three or four thousand medical diplomas yearly upon its laboriously educated students, in France there were granted, in 1883, only 662 diplomas; of these 465 were granted in Paris, the remainder in the five provincial schools. In the same year the number of diplomas conferred in the German Empire was 692.

The College of Physicians and Surgeons of Chicago held its annual commencement on March 11th, and graduated a class of fifty-two.

The Rhode Island State Medical Society held its regular quarterly meeting at Providence on March 20, 1884.

The Indiana Insane Asylums.—We are constantly reminded that reform progresses slowly, especially as concerns the proper medical care of the insane. Recent despatches state that a great deal of indignation has been excited over the reported condition of insane women in the county poor-houses throughout the State of Indiana. The Secretary of the State Board of Health and the Superintendent of the Insane Asylum have been making a survey of these poor-houses, and the condition of things is terrible. Superintendent Fletcher states: "If one could tell half the truth about the poor-houses of Indiana, and the treatment of the women in them, the insane and the idiotic, I believe the women of Indiana would move upon them and tear them down. There is a fine opening for reform, and if you will awaken sentiment on the subject you cannot fail of doing great good."

Three Students of the Harvard Medical School, who last week passed their examinations, are not happy. One wrote an excellent set of papers, the other two copied them word for word, and the examiner ranked them at 98 per cent. He remarked, however, that as the three papers were identical this gave the three but about 33 per cent. each, and as 50 per cent. is required for a diploma, all three were plucked.

Bills before the New York State Assembly.—The following bills were favorably reported this week: Incorporating the New York Cancer Hospital. Incorporating the Good Samaritan Dispensary in New York. Legalizing all medical degrees and diplomas granted by the United States Medical College in New York. The bill making the Health Officer of New York a salaried officer was reported adversely.

Against Female Physicians.—At a largely attended meeting of the Philadelphia County Medical Society, April 2d, a proposed amendment to the constitution, permitting the admission of female physicians to membership, was defeated by a vote of 79 yeas and 48 nays, it requiring a two-thirds vote for the passage of the amendment.

THE SIMS MEMORIAL FUND.

To the Medical Profession and Others throughout the World:

The great achievements of Dr. J. Marion Sims call for some more lasting testimonial than obituaries and eulogies. To him medical science is indebted for much brilliant and original work, especially in gynecological surgery. Those who have been benefited by his teachings and new operations, and such as have had the direct advantage of his personal skill are among the first to recognize and acknowledge this debt.

To him is due the honor of giving the first strong impulse to the study of gynecological surgery in America.

It is believed that the medical profession everywhere, the vast number of women who owe their relief from suffering directly to him, and those who realize the benefits he first made possible, will gladly unite thus to honor the man through whose original and inventive genius such blessings have been conferred upon humanity.

At the suggestion of many friends, therefore, the subjoined committee has been organized, and it is proposed that a suitable monument be erected to his memory in the city of New York.

To this end the active co-operation of the medical profession and the many other friends of Dr. Sims throughout the world is respectfully solicited. Contributions of one dollar and upward may be forwarded to the journal which has been constituted the treasury of this fund—THE MEDICAL RECORD, New York.

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Reviews and Notices.

A Treatise on Bright's Disease of the Kidney: Its Pathology, Diagnosis, and Treatment. By Henry B. Millard, M.D., A.M. With numerous original Illustrations. New York: Wm. Wood & Co. 1884.

The book before us is said to embody the results of twenty-six years' hospital and private practice experience, as well as several years' laboratory study. It tells us, in plain and unmistakable language, what Dr. Millard thinks about nephritis, and the way in which he treats patients afflicted with the various forms of that frequent and largely fatal malady. Beginning with the end, we may say that the chapters on treatment mention most of the methods and remedies recognized by the profession as potent to afford relief or work a cure in diseased conditions of the kidneys. New ideas are conspicuous by their absence from this portion of the book. Turning thence to the first portion of his treatise, we find the evidences of an original mind that has attempted to elucidate the complex histology of the renal organs and their still more complex pathology. Dr. Millard's views on both subjects being borrowed from, or largely influenced by, the teachings of Heitzman, are at variance with what the profession has generally recognized to represent the actual condition of things. It is certainly refreshing to read anatomical and pathological statements that are not mere repetitions of what has been already well said by previous writers. The discriminating physician and pathologist will not fail to read with interest the opinions expressed by Dr. Millard, even if he discovers that he cannot accept them in place of his own. To those who are able to compare self-gained experience and matured opinions on the subject of nephritis with the author's somewhat peculiar views, the work may be confidently recommended.

As for the novice in medicine, be he student, recent graduate, or inexperienced practitioner, he will do well to choose along with this work some of our standard text-books for his guide in the attempt to understand the subject of Bright's disease.

Die Diphtherie. Ihre Entstehung, Verbeitung, und Behandlung. Von Dr. C. G. Rothe, Altenburg. Leipzig: Ambr. Abel. 1884. Diphtheria. Its Origin, Prevention, and Treatment. By Dr. C. G. Rothe.

Dr. Rothe is an intelligent practitioner of large experience. He is, besides, thoroughly familiar with the literature of his subject. It is not surprising, therefore, that he should have written a valuable and concise treatise on diphtheria. He wastes no space with purely theoretical disquisitions. His book gives us a very fair idea of the actual state of our knowledge concerning diphtheria.

Excessive Venery, Masturbation, and Continence. The Etiology, Pathology, and Treatment of the Diseases resulting from Venereal Excesses, Masturbation, and Continence. By Joseph W. Howe, M.D., late Clinical Professor of Surgery in Bellevue Hospital Medical College, Visiting Surgeon to Charity and St. Francis Hospitals, etc., etc. 8vo, pp. 299. New York: Bermingham & Co.

This is a very judiciously written book on a much hackneyed subject, which is viewed from the standpoint of a practical surgeon of large experience, and is thoroughly discussed in all its bearings. The author has the faculty of generalizing his points, which proves of immense service to him in writing a book of this kind, and shows in marked degree his qualities as a successful clinical teacher. His facts are clearly presented, due prominence is given to the salient ones, and the conclusions are natural and logical. In fact, the author shows himself a master of the subject in all its various details. The causes, diagnosis, and treatment of the various disorders that marshal themselves under the general term of excessive venery are very instructively presented. Very curious experiences are detailed, especially such as bear upon mental influences as connected with the use or abuse of the sexual act. In matters of treatment, the author takes the usual rational courses now so generally admitted—local and general. He has much faith in electricity in many obstinate cases of impotence and spermatorrhœa; but, contrary to the experience of most surgeons, he does not advise the steel sound, save in cases of neuralgia of the neck of the bladder. His confidence in special medication is quite pronounced, if not overdrawn. This, however, is excusable, in view of the number of admirable prescriptions which appear in different parts of the work. Altogether, this book is an admirable one for such as desire to study the subject of which it treats in all its varied bearings, and to obtain points of treatment based upon the large and varied experience of the author.

A System of Oral Surgery, being a Treatise on the Diseases and Surgery of the Mouth, Jaws, Face, Teeth, and Associate Parts. By James E. Garretson, M.D., D.D.S., Dean of Philadelphia Dental College, Surgeon in Charge of Hospital of Oral Surgery, etc. Fourth Edition, thoroughly revised. 8vo, pp. 1,037. Philadelphia: J. B. Lippincott & Co. 1884.

The present edition of this standard work is considerably enlarged compared with former ones. Several new illustrations are also added. Altogether it maintains its high standard of completeness and excellence, the additions are of value, and prove that the author "has done all he finds himself able to do," which is saying a great deal. As might be expected, his line of work drifts more strongly toward dental operations, so understood, than to the higher surgery of the oral region. This is no disparagement to the skill and originality of the author as a surgeon, but gives us a good reason for saying that the work is especially adapted to the wants of the progressive dentist. One of the most interesting parts of the book to surgeon and to dentist is the description of the author's method of using the dental engine in operations upon the jaws proper. Dr. Garretson has shown in many ways the future possibilities of that instrument in precision of application and in certainty of results, as compared with the ruder method of breaking a way through bone by the "lion forceps" for the removal of morbid growths, or for the cure of diseases involving the harder structures of the jaws. The work is well printed, and in every way a creditable production.

Surgical Experiences in the Zulu and Transvaal Wars, 1879 and 1881. By D. Blair Brown, F.R.C.S., Edinburgh, Army Medical Department. Edinburgh: Oliver & Boyd. 1883.

For military surgeons and all those interested in the treatment of gunshot injuries and the other accidents of warfare, this little collection of cases will have an undoubted value. The average practitioner, living among people of peaceful proclivities, will care very little for such collections of surgical cases.

The Extra Pharmacopœia of Unofficinal Drugs and Chemical and Pharmaceutical Preparations. By Wm. Martindale, F.C.S., late Teacher of Pharmacy and Demonstrator of Materia Medica at University College. With References to their Use, and a Therapeutic Index of Diseases and Symptoms, by W. Wynn Westcott, M.B. Second Edition. London: H. K. Lewis. 1884.

The first edition of this little book appeared many years ago, and it has been out of print for some time. The new issue is fully up to date, and will be welcomed by many as a useful little reference book. It will be more especially serviceable to our British cousins, as the recent issue of our own Pharmacopœia contains adequate information concerning most of the drugs and preparations mentioned in the "Extra Pharmacopœia."

Reports of Societies.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, March 20, 1884.

FORDYCE BARKER, M.D., LL.D., PRESIDENT, IN THE CHAIR.

LOCOMOTOR ATAXIA AND SYPHILIS.

DR. LEONARD WEBER, read a paper on the above subject (see p. 370).

THE PRESIDENT, in opening the discussion, directed attention to the light shed on diagnosis by the results obtained from the use of certain therapeutical agents. He gave briefly the history of three cases, in which ataxic symptoms were well marked; no evidence could be obtained of syphilis beyond the fact of exposure, except in one, and in that instance the patient had been perfectly well, apparently, for many years, and yet there was an extraordinary improvement under the influence of iodide of potassium and bichloride of mercury gradually carried up to the point of tolerance.

He thought that the effects produced by remedies should not be lost sight of while studying the relation which exists between these two diseases.

DR. R. W. AMIDON thought that but little could be added to the paper of the evening, but he wished to put himself on record as opposed to the view that typical locomotor ataxia, or sclerosis of the posterior columns of the spinal cord, is a syphilitic affliction.

The speaker then referred to the statistics given in Dr. W. R. Birdsall's paper, of carefully selected cases; that is, only those were included in which syphilis could be traced distinctly, and of 44 cases of locomotor ataxia collected from the clinic for nervous diseases at the College of Physicians and Surgeons, and at the Manhattan Eye and Ear Hospital; only 9.5 per cent. gave a history of syphilis.

Heretofore the conclusions, with reference to causal relation existing between the two diseases, had been based upon statistical data entirely. It was well known how unreliable such data were, and the fact that the percentage varied so greatly, as set forth in Dr. Birdsall's paper, varying from 9.5 to 88 per cent., and further, as seen by Dr. Weber's paper, from 1 to 96 per cent., Dr. Amidon regarded as sufficient to render statistical deductions worthless.

With reference to deductions drawn from treatment, he had never seen a case of sclerosis of the posterior columns of the cord cured by anti-syphilitic treatment. He had seen many cases in which improvement took place under the use of iodide of potassium and mercurials, but they were not cured, and we have therefore, as the last resource, to turn to pathological anatomy in search of evidence. Here, if due to syphilis, tabes must occur with either the secondary or tertiary lesions.

So far as the tertiary lesions of syphilis were concerned, they very seldom involved a particular region of a certain organ. Syphilitic lesion of the liver was usually circumscribed, with normal hepatic tissue between the gummatous masses.

It was true that syphilis was very apt to produce disease of the connective tissue, and it was also true that the lesion in locomotor ataxia, or sclerosis of the posterior columns, was secondarily a connective tissue disease. Dr. Amidon thought all authorities agreed that primarily there was a lesion of the contents of the nerve-tubules themselves, which was followed by disease of the connective tissue, resulting in cicatricial contraction of the parts involved. The course of the disease was also against the view that it was syphilitic—namely—it was progressive and slow, while the course of most late secondary and tertiary syphilitic diseases was rapid. What experience Dr. Amidon had had in the treatment of the disease, as well as what he had derived from consulting authorities, and in the study of the pathological anatomy, had been in one direction—namely, against the view that sclerosis of the posterior columns of the spinal cord, or true locomotor ataxia, was syphilitic in nature.

DR. R. W. TAYLOR said he was already on record as an opponent of the theory, founded on statistics, that locomotor ataxia was caused by syphilis, and was very glad to observe the cautious manner in which Dr. Weber handled the subject. As was well known, perhaps, Duchenne first suggested a causal relation between syphilis and locomotor ataxia, inasmuch as he had found the two diseases associated in a number of cases, but he did not assert that such a relation existed.

It was Fournier who first placed syphilis as a cause of locomotor ataxia, and in one of his lectures said that in thirty-six cases, twenty-four of the patients were syphilitic. Dr. Taylor thought the large proportion thus reported by Fournier could be accounted for readily, on the reasonable supposition that if a man ever had syphilis and had locomotor ataxia, he certainly went to Fournier for treatment.

One reason given by Fournier for the frequent association of the two diseases, was its occurrence in the tertiary period, or as he called it, the third year; but in America syphilis was not seen in the tertiary period in the third year of its existence. Dr. Taylor also thought that the symptoms described by Fournier, such as loss of sexual power, etc., differed entirely from the symptoms seen in the course of typical locomotor ataxia.

Again Fournier was almost alone in the statement that treatment was of no service.

Turning to cases reported by Erb, Gowers, Broadbent, and others, it would be found on close inspection, that in all of them syphilis was reminiscent. Dr. Taylor also reviewed the statistics published by a large number of observers, and said he believed that they exhibited sufficient disparity to cause grave doubt concerning the existence of a causal relation between the two diseases.

With regard to the pathological anatomy of syphilis of the nervous system, it had been well studied under the following heads: (1) Changes affecting the blood-vessels; (2) hyperæmia; (3) connective tissue infiltration, and (4) gummatous infiltration.

When in the distribution of syphilitic lesions, they were scattered in patches, and frequently asymmetrically. Further, syphilitic lesions of the nervous system were apt to be of meningeal origin. Besides, Westphal and Gowen had reported autopsies made after locomotor ataxia, with and without syphilis, and precisely the same changes were found in both classes of subjects.

An important point in Rosenthal's cases was, that in a number of them the men who are put down as syphilitic had begotten perfectly healthy children *before* they suffered from any of the symptoms of locomotor ataxia; and just here Dr. Taylor asked the pregnant question, Can we say that in those cases the tabes was due to syphilis?

DR. W. R. BIRDSALL thought that, at the time he reported his collection of cases, referred to by Dr. Weber and also by Dr. Amidon, no similar report had been made in this country; and while he found only 9.5 per cent. of the cases of locomotor ataxia, seen at Dr. Seguin's clinics referred to, associated with unquestionable syphilitic history, he thought the statistical argument should not be ignored entirely. Nor did he think that, from the whole number collected, 535 cases, anything like an average could be reached; certainly not from the number which any single observer had reported.

An important fact to be borne in mind when studying Erb's cases, was that that observer did not make any distinction between chancre and chancroid.

If it should be found that the two diseases have been associated in a very large number of cases, Dr. Birdsall thought we should be extremely cautious before saying there was no connection between the two affections. So far as the proof of any connection between the two

diseases was concerned, he was of the same opinion as those who had already spoken. He was in accord with the conclusions given by Dr. Weber, although he did not have the pleasure of listening to the first part of his paper. Buzzard had recently called attention to the fact that gummatous affection might disappear and the secondary meningitis continue, which might account for the prominence of the sclerosis found on final examination. Dr. Birdsall regarded true locomotor ataxia as synonymous with posterior spinal sclerosis.

Dr. E. L. Keyes thought the syphilitic element in these cases shonld not be ignored entirely, and while he did not believe that simple sclerosis of the posterior columns of the cord, locomotor ataxia pure, could be caused by syphilis, it was probably entirely possible that meningeal lesions might progress into parts of the spinal cord and be attended with ataxic symptoms. He had seen two or three dozen syphilitic cases, perhaps, with ataxic symptoms, and was inclined to attach some weight and value to pre-existing syphilis as an active factor in the induction of such lesions as would produce ataxic symptoms. In one or two cases the ataxic symptoms had been distinctly relieved by anti-syphilitic treatment, the iodide in large doses, and mercurial inunction. He did not believe, however, that either remedy alone was necessarily effective. His general view of the therapeutical results in these cases was that some patients could be relieved, none could be cured, and in some treatment fails entirely and absolutely.

Dr. A. McLane Hamilton thought that much confusion had arisen from the different use of terms by different observers, and it was readily seen, while studying the literature of the subject, that a great variety of conditions had been recorded as locomotor ataxia. In pure classical locomotor ataxia, posterior spinal sclerosis, he had not found more than twelve per cent. of the cases with a history of syphilis.

In the disorderly cases, where there were head symptoms, etc., syphilis played a very important part.

So far as treatment was concerned, he had used mercurial inunction with good results. The use of the iodide of potassium, however, in very large doses—two or three hundred grains daily perhaps, given in mildly alkaline water, had benefited some patients very much indeed.

Dr. F. N. Otis thought that the experience of Erb and Fournier, each well known and eminent in his special work, could hardly be discarded, and therefore he spoke with great hesitation concerning disallowing the claim that syphilis bears a causal relation to locomotor ataxia. His knowledge of syphilitic disease had been such as to make him incline to the opinion that locomotor ataxia might be more readily produced as some syphilitic troubles are than in any other way, regarding it as a disease of the connective tissue, which acts exactly as we know syphilis does, and in the same rotation. For example, in the syphilitic testicle, there appeared first gummatous material, which was capable of changing into connective tissue, that contracted and destroyed the function of the organ.

There was nothing known of the pathology of tabes which could shed any light upon its etiology. As Erb had said, we must wait, and perhaps an intelligent explanation will yet be reached through histological investigations with reference to the lymphatics.

In the mean time personal experience and statistics must be our guide, and we cannot afford to say that the experience of men whom we know have capacity to give these investigations value is of no avail.

Dr. Otis then related a case which illustrated that our best knowledge sometimes cannot eliminate the possibility of the patient being benefited by anti-syphilitic treatment. He had also had three cases in which the patients had been very greatly benefited by this kind of treatment. He felt convinced that no case, if early obtained, should be passed by without the benefit of a thorough trial of mercury and iodide of potassium; and until some scientific knowledge on the subject could be obtained we should be guided by experience.

Dr. E. C. Spitzka, on invitation, took part in the discussion, and said that one important set of facts had been ignored. Syphilis, in the secondary period, undoubtedly affects the central nervous axis, as during the fever of the secondary period tendon reflex is abolished. If syphilis in the secondary period was capable of so affecting the central nervous axis as to abolish tendon reflex, why might it not, during the tertiary period, affect it in the way of producing locomotor ataxia?

Syphilitic meningitis differs in no respect from ordinary meningitis; nor is endarteritis peculiar to syphilis. It was only the gumma, then, that could be regarded as characteristic of syphilis. Yet no one denied the existence of syphilitic meningitis, nor syphilitic hemorrhage, etc. According to his own experience, syphilis had been an essential etiological factor in about two-thirds of his cases of locomotor ataxia. He had had three cases occurring in women, in which there was a well-defined cause other than syphilis, and besides, no trace of specific disease could be obtained in their histories. While the statistical argument was usually a weak one, it had been so handled in connection with these two diseases as to leave no doubt that syphilis preponderates among those who suffer from locomotor ataxia. He thought the question of etiology was almost identical with that of general paralysis of the insane, a question which has been very accurately studied, and concerning which it seemed to have been established that syphilis preponderates among those who suffer from that disease.

The Academy then adjourned.

SECTION IN OBSTETRICS AND DISEASES OF WOMEN AND CHILDREN.

Stated Meeting, March 27, 1884.

Alexander S. Hunter, M.D., Chairman.

THE TREATMENT OF DIPHTHERITIC CROUP.

This subject was brought before the Section by Dr. J. Lewis Smith in a paper read February 28, 1884, and its discussion was made the special order for this evening.

Preliminary to the discussion proper, Dr. W. H. Welch, on invitation, briefly described the anatomical characters of diphtheritic croup, and said, that as the present discussion related chiefly to the treatment of the disease it would be out of place for him to do more than to give a brief outline of the leading pathological characters.

A part of the confusion regarding the pathology of diphtheria and croup is due to a failure to distinguish between the anatomical use of the terms diphtheritic inflammation and croupous inflammation, and the clinical significance of the terms croup and diphtheria. Every pseudo-membranous inflammation of a mucous membrane is called by pathologists either a croupous or a diphtheritic inflammation, without regard to the cause of the inflammation. An essential condition of such pseudo-membranous inflammations appears to be a destruction or a profound alteration of the epithelium covering the mucous membrane. This destruction or alteration of the epithelium may be only in small patches, or it may involve the greater part of the epithelial covering of the affected mucous membrane.

The false membrane differs in its constitution in different cases, and particularly according to the situation of the inflammation. In some cases the false membrane consists of a coagulated exudate from the blood, and then the process is called croupous inflammation. In other cases the false membrane is composed wholly or in part of a portion of the mucous membrane itself, which has undergone a kind of coagulation, and then the process is a diphtheritic inflammation.

A croupous membrane contains fibrillated fibrin, often not differing from that found in inflammations of serous membranes, or that resulting from coagulation of liquor

sanguinis. It also contains a greater or less number of leucocytes, and these may undergo a hyaline metamorphosis or coagulation necrosis, and matted together form an integral part of the false membrane. The membrane rests, at least in some part of its course, either upon the membrana propria of the mucous membrane or upon necrosed epithelial cells. Croupous membranes as a rule are readily stripped off from the subjacent mucous membrane. Pseudo-membranous inflammations of mucous membranes, such as the trachea, covered with cylindrical epithelium, resting upon a thick basement membrane, are usually, but not always, of the croupous variety.

In diphtheritic inflammations either the epithelial cells or the superficial layers of the corium of the mucous membrane have been converted into a peculiar glistening hyaline substance, with little or no trace of cell structure, and arranged usually in the form of an irregular and coarse network. When the false membrane is derived from the epithelial covering of the mucous membrane and occupies the situation of this epithelium the process is called a superficial diphtheritic inflammation by Ziegler, or less happily by Weigert, a pseudo-diphtheritic inflammation. When the false membrane is composed also of a part of the conium of the mucous membrane the process is a deep diphtheritic inflammation. Most of the diphtheritic membranes upon the tonsils and soft palate are of the superficial diphtheritic variety. During life they are closely adherent, but at the autopsies they are often readily detached.

Diphtheritic membranes may contain ordinary fibrin as well as the hyaline or coagulated substance derived directly from the tissue of the mucous membrane. The change in the tissue producing the hyaline substance is described by various names, such as fibrinoid or diphtheroid degeneration, coagulation-necrosis, and hyaline metamorphosis. The hyaline material seems to be produced, at least in great part, by a direct transformation of the cells and tissue-elements. This material, although it is believed by some to be produced by a fibrinoid coagulation of cell-substance, differs from ordinary fibrin in several respects. It is much more refractive, and is much more resistant to the action of acids and of weak alkalies than is fibrin. It also reacts differently toward various staining dyes. In addition to fibrin and hyaline material the false membrane may contain mucus, red blood-corpuscles, leucocytes, intact epithelial cells, and bacteria.

The mucous membrane beneath a croupous or a diphtheritic membrane is more or less infiltrated with emigrated white blood corpuscles, and sometimes contains hemorrhages. Peters, working under v. Recklinghausen's direction, has recently called attention to foci of hyaline degeneration in the mucous membrane beneath the pseudo-membrane. Such foci are found mainly in the superficial layers of the mucosa. The hyaline degeneration involves, first, thrombi formed in the blood-vessels and the lymphatics, next the walls of the blood-vessels, and finally the adjacent connective tissue and inflammatory products.

The distinction thus drawn between croupous membranes and diphtheritic membranes is a histological one. It usually, but not necessarily, corresponds to the macroscopical distinction adopted by most writers that croupous membranes are loosely adherent, and diphtheritic membranes are closely adherent to the subjacent mucous membrane. There are some writers who do not see any use in distinguishing between croupous and diphtheritic exudations, and employ for both one term, which is sometimes croupous, sometimes diphtheritic, and sometimes fibrinous inflammation. The distinction which has been drawn, however, seems a useful one, even if its application in individual cases is not always easy, a difficulty, indeed, with most of our classifications in medicine.

Diphtheritic and croupous inflammations of mucous membranes may be produced by a variety of causes, of which the special poison of the disease diphtheria is only one. The false membranes produced by the special poison of diphtheria have nothing about them, so far as we at present know, which distinguishes them from false membranes produced in the same situations by other causes. Most pathologists do not accept the view of Klebs, that in diphtheritic membranes micro-organisms exist, which can be distinguished by certain characteristics from similar organisms in decomposing fluids and in other places. The presence of bacteria in the diphtheritic membranes, and, what is of more importance, in the lymphatics and lymph-spaces of the affected mucous membranes, and in internal organs in diphtheria, has been often observed, and the observation is of interest and importance; but it cannot be said that diphtheria is at present one of the strongholds of the germ-theorists. Most of the arguments urged by the opponents of the germ-theory can be presented with especial plausibility as regards the existing observations of bacteria in diphtheria. One's position with reference to the existence of specific micro-organisms as the cause of diphtheria, will therefore depend upon his attitude toward the germ-theory in general. Dr. Welch believed that such organisms do exist in diphtheria, but their special characteristics are not known, they have not been satisfactorily isolated by fractional cultivation, and inoculation experiments have not yielded uniform and clear results.

Dr. John H. Ripley then read the paper of the evening (see page 367).

Dr. A. G. Gerster, on invitation, opened the discussion, and said he had performed both the high and the low operation, and regarded a long slender neck as most suitable for the latter. He had performed tracheotomy in 21 cases, the children varying in age from ten months to nine years; 4 patients recovered and 17 died. In most of the cases the high operation was performed. The cause of death in ten cases was extension of the previous inflammation downward; in 5 cases septicæmia; in 1 case acute œdema of the lungs, pneumonia having preceded the operation; and in 1 case death was caused by asphyxia, the father having blown a teaspoonful of powdered alum through the tube into the trachea. He fully agreed with Dr. Ripley that true pneumonia is not common as a complication of croup of the larynx. Croupous bronchitis, however, was very commonly the cause of death. Dr. Gerster thought it possible to select cases, but that it was very difficult. He had tried Paquelin's cautery, at one time recommended as a means of avoiding hemorrhage, and had found the operations far from bloodless.

Dr. A. R. Robinson agreed with Dr. Ripley concerning the place for opening the trachea, and also that a fenestrated silver tube should always be used.

He then spoke especially concerning the time at which the operation should be performed in order to best avoid the complications which might influence the result unfavorably. The amount of blood-poisoning could be closely estimated, as a rule, by the situation of the membrane and the area affected. If upon the parts covered with squamous epithelium, as the anterior part of the throat or the back part of the tonsils, the blood-poisoning would not be so great as when the membrane was situated upon the upper, posterior part of the pharynx, and in the nose. But, whether great blood-poisoning was present or not, the symptoms went on without great elevation of temperature. When laryngeal diphtheria existed, however, pharyngeal and nasal diphtheria were present in nearly every case. There were, then, the same conditions in laryngeal diphtheria as in the other divisions, and besides the stenosis and its results, if it continued, which accompanied the formation of a pseudo-membrane in that locality.

He based his argument for the early operation upon the dangers attending the stenosis, which were suffocation, lack of proper supply of air to the pulmonary circulation, collapse of alveoli of the lungs, and the younger the child the sooner would this closure occur. Besides the dangers from stenosis, there were those from exten-

sion of the membrane to the trachea and bronchi, which was more likely to occur if those parts were in a catarrhal condition. The longer the stenosis existed the nearer was the approach to collapse, and an œdematous condition of the alveolar walls and broncho-pneumonia. The important question was, whether tracheotomy should be performed before these pathological conditions developed or after they were on the road to broncho-pneumonia.

The immediate effect of the operation was to produce shock, more or less, and if the child was very weak, it might be sufficient to cause death to occur upon the table.

The dangers after the operation were also from blood-poisoning, descent of the membrane, and from catarrhal pneumonia.

From these liabilities and dangers Dr. Robinson argued that, in cases requiring the operation, the earlier tracheotomy was performed the less the danger from descent of the membrane or the occurrence of broncho-pneumonia. That death occurred from broncho-pneumonia complicating diphtheria had been established by statistics. He believed it to be important, after the operation, to administer such remedies as added force to the cardiac action and thereby increased the activity of the pulmonary circulation, as for example, digitalis. The inhalation of a warm, moist air, he regarded as an essential, and to secure this he kept a sponge moistened with warm water over the tube. He agreed with Dr. Ripley as to the great importance of keeping the inner tube clear, and to do this properly, and also see that the patient had necessary attention, constant *medical* attendance must be given until the period of danger has fully passed, say forty-eight hours. Do not allow the temperature to rise above 102° F.; and it could be controlled best by the use of cold. Dr. Robinson was unwilling to accept any statistics made up from cases in which the after-treatment had not been *thoroughly* attended to; for example, those cases in which the physician saw the patient only once or twice a day. He thought that in his four fatal cases out of thirteen operations, two of the patients died from lack of attendance.

Whether or not the operation should be performed, he thought should not be a question. If it was evident that the patient would die no one had a right to perform tracheotomy, as the patients did not suffer, although the symptoms were apparently very urgent. The principal objection to operating under such circumstances was the effect it had in preventing others from allowing tracheotomy to be performed in cases in which it afforded the best hope of recovery. A slight stenosis of the larynx in a child *two* years old would call for the operation much earlier than the same amount of stenosis in a child six, eight, or ten years of age.

Dr. Fanning referred to the administration of powdered alum, in drachm doses, every fifteen minutes, as suggested by Meigs and Pepper, until it produced vomiting, and perhaps the necessity for an operation could be avoided by throwing off a cast, and thus relieving the stenosis.

Dr. J. H. Fruitnight spoke of the beneficial effects produced in some cases by the use of inhalation, particularly of lime-water in combination with liquor potassa, as recommended by Dr. Smith.

The discussion was continued by Dr. S. M. Roberts, and then closed by Drs. Ripley and Smith.

Dr. Ripley asked Dr. Robinson how many cases of pneumonia complicating diphtheritic croup he had seen at autopsy.

Dr. Robinson said he had not seen any, and that his statement was founded upon the statistics of other observers.

Dr. Ripley said he based his statement, concerning the occurrence of pneumonia, upon autopsies which he had seen, of which there were seven, and he had records of each clinical history. So far as children having bronchial croup was concerned, and dying of pneumonia three or four days afterward, it was not true, so far as his experience went, and further, the children might die with *high* temperature *without* any pneumonia whatever.

Tympanitic percussion was the rule in laryngeal, and also in bronchial stenosis. At autopsy, in such cases, the lungs were pale, bloodless, occupied a larger space than normal, and did not collapse on opening the thorax. That was the rule, so far as he had seen. There was excessive dilatation of the air-vesicles.

Those who operated early would have better results than those who operated later, because they would operate upon some patients when the operation was not essential to recovery. So far as congestion of the lungs was concerned, occurring in patients with laryngeal stenosis, he believed he had refuted that theory by the evidence afforded at autopsies.

He had performed tracheotomy for croup a hundred times, and had rarely seen bronchial croup present, even in the later periods of the disease. He believed it to be almost impossible for Dr. Robinson, or any one, to tell when the operation was absolutely useless, and Dr. Robinson had admitted that he had operated when he supposed the child would die, but recovery took place. Dr. Leale also had had reported a case of like character. Further, of the bad-looking cases, quite as good a percentage had recovered as among any other class. With reference to its being a simple operation, Dr. Ripley was willing to go upon record as saying that there have been more deaths upon the table in tracheotomy than from any other operation which is performed. He was in most hearty accord with what Dr. Robinson had said concerning the importance of skilled attendance after the operation

Dr. J. Lewis Smith said he looked upon emetics with a great deal of suspicion, and should not feel inclined to recommend either alum or turpeth-mineral in the treatment of diphtheritic croup. With regard to inhalations, as soon as the patient was hoarse they should be begun, and in many cases, if followed up faithfully, true diphtheritic croup could be averted. He had no doubt concerning the benefit to be derived from inhalation of alkaline solutions, especially turbid lime-water with two per cent. of liquor potassa, and administered with a metallic point having a large opening.

The Section then adjourned.

A Means of Limiting Injections to the Anterior Portion of the Urethra.—According to Guyon the urethra is divided by the sub-pubic sphincter into two portions, an anterior and a posterior. Fluids injected in the ordinary way, if the meatus be not closed, do not pass this internal sphincter, but neither do they reach all portions of the anterior urethra. If the meatus be held closed over the point of the syringe, the injection bathes all the surface of the urethral membrane, but at the same time it is forced up into the posterior portion and thus often serves only to increase the extent of the gonorrhœal inflammation. In order to obviate these difficulties, and to ensure a thorough cleansing of the anterior portion of the urethra, while avoiding the danger of extending the inflammation to the posterior portion, Dr. Aubert employs the following simple procedure (*Lyon Médical*, February 10, 1884): He takes a piece of rubber tubing about four inches in length, and of a calibre very much less than that of the urethra. This is oiled and introduced into the canal, and the nozzle of the syringe being attached to its free extremity the injection is passed through it. The fluid is thus introduced deep down into the anterior portion of the urethra and flows outward alongside the tube. It washes out the anterior portion very thoroughly, but unless great force be employed in the injection none of the fluid passes into the posterior portion.

Correspondence.

OUR LONDON LETTER.

(From our Special Correspondent.)

THE UNIVERSITY OF LONDON AND ITS MEDICAL DEGREES.

LONDON, March 22, 1884.

THE promulgation of some fresh regulations at the London University suggests a few remarks on the shortcomings of that institution. Originally established in Gower Street as a mere teaching body, in a few years it vacated the buildings there erected and moved westward, where in turn it became, under a new charter, merely an examining body. The institution then became known as University College, and still continues as a teaching body with numerous faculties. The basis on which the present University of London was started was to give a degree to any one who could pass the examinations. So far as regards the medical examinations, this understanding has not been carried out, and they are fenced in with numerous vexatious regulations.

There are two preliminaries to be passed—one in arts and one in science. These two examinations combined are as hard or harder than a *pass* B.A. at Oxford or Cambridge. The scientific preliminary is becoming more and more an examination in pure science, without reference to the wants of medical students. For instance, the chemistry given is not *medical* chemistry, but general scientific chemistry. Nearly half the questions in some years have been on such subjects as the extraction of metals from their ores, the chemistry of silicon compounds, and similar bodies of non-medical interest, gaseous chemistry, and various theoretical parts of the subject.

The same remarks apply to the syllabus of each of the other subjects, viz., botany, zoology, and physics.

As regards the later examinations they are too heavy. Too many subjects are examined in at once, and the consequence is that many students fail to pass. Then all the examinations—except the matriculation examination—are only held once a year. There are eleven medical schools in London for men, and the London School of Medicine for Women. It might be thought that these would send a large contingent of graduates yearly to the university. What are the facts? The annual entries at the London schools are over six hundred in number. The number of medical graduates at the London University a year is (taking the average of the last seven years) only about forty, and even from this figure a deduction must be made, for a few graduates a year come from Provincial, Irish, and Scottish schools. Taking it, however, at forty, this means that out of every fifteen students only *one* succeeds in graduating. And this in London—our chief centre of medical study. With all the boundless resources of our large London hospitals, and all the teaching power that two hundred medical teachers—many of them of world-wide reputation—have to offer, *less than seven per cent. of London students succeed in graduating at the London University.* Being the only British university which offers to students a medical degree without exacting a term of residence within its own colleges, it might have been thought that in London, at any rate, it would draw a large contingent of graduates. But it is not so.

It is not, in fact, the University of London, but, as it has well been termed, the University *in* London, *i.e.*, it is simply an examining body located in Burlington Gardens The standard it fixes is unreasonable. Of those who do graduate a large proportion have been plucked at some stage. Some of its own examiners have formerly been plucked, and there is scarcely one of our metropolitan hospitals but has on its staff one or more members who have been plucked at the London University. I could mention half-a-dozen instances in a moment, and could easily make out a list of "killed and wounded" that would astonish your readers. It would, however, be invidious to mention names. I may just remark that it is not alone the idle and incapable who do not succeed. I have known several cases in which students who have obtained a medal or exhibition at one examination have failed at a subsequent one; others in which unsuccessful candidates have subsequently won scholarships and medals, and one or two instances in which candidates have, on a second trial, taken the first place and gold medal in the very subject in which they were rejected only the year before.

Such being the state of things it is not to be wondered at that many of our leading teachers deliberately advise their pupils to avoid the University of London, and go elsewhere for a degree, or else remain satisfied with a diploma. It must not be inferred that there is any unfairness to individual candidates, though certainly in the *viva voce* and practical parts of the examinations there is room for a little difference in the severity of the task set different candidates; for instance, at the Medical Board examination in 1882, one candidate was given a case of exophthalmic goitre to diagnose in which the symptoms had disappeared under treatment and the patient was about to be discharged from the hospital. The candidate failed to make out the case and was plucked. If this occurred exactly as I heard it, it seems hard, at least, if not positively unfair. Moreover, some of the examiners are not particularly nice in their manner with candidates. Professor Rutherford, when examiner, was by no means a favorite, and among the present examiners neither Dr. Mathews Duncan nor Professor John Wood err in being over-effeminate. I am told that the latter examiner is very deaf, which is, to say the least, rather awkward for candidates.

OUR PARIS LETTER.

(From our Special Correspondent.)

THE DISCUSSION ON THE PATHOLOGY AND PROPHYLAXIS OF PUERPERAL FEVER.

PARIS, March 21, 1884.

AFTER the learned discussion that has taken place at the New York Academy of Medicine, on the pathology and prophylaxis of puerperal fever, your readers may be interested to know something of the most recent literature of the subject as enunciated by French authorities at the various learned societies, in their clinical teachings and in their published works.

Dr. Sirédey, though not, strictly speaking, an obstetrician, yet has had considerable experience from having devoted much of his time and attention to puerperal affections at the Lariboisière Hospital, to which he has been attached since 1858—first as an interne and then as physician—at which there is an important service of accouchements. Here a considerable number of parturient women passed under his observation; his opinion and experience on the nature of puerperal fever will therefore be of some value, and this he gives in an interesting work he has just published, entitled: "Clinical Studies on Puerperal Diseases." As among our American confrères, there are on this side of the Atlantic two principal currents of opinion entertained as to the nature of puerperal fever: the one representing it as an essential fever generated and propagated after the manner of other infectious diseases, while the other attributes its origin to an unknown agent, but whose effects are always marked by appreciable lesions having their starting-point in the alterations in the lymphatic vessels or veins of the uterus. The former has few supporters among the present generation of obstetricians, and, strange to say, both theories are, at the present time, represented at the Paris Maternity. Professor Tarnier, surgeon to the institution, scouts the idea of essentialism in puerperal fever, while Dr. Hervieux, the physician, is a fervent believer in it. That the

puerperal poison is a morbid entity after the fashion of typhoid fever, small-pox, cholera, etc., is a theory more fully developed in a work by Dr. Hervieux on the pathology of abortion or premature labor, in which he endeavors to make out that the puerperal poison is the cause of these accidents, when they cannot be otherwise accounted for.

Dr. Sirédey asserts there is no such a thing as "essential puerperal fever." That the parturient female has nothing special about her, and that she should be looked upon merely as a patient with a wound, exposed to all the complications of surgical wounds. In response to the objection that has been made to the above definition on the grounds of the modifications that the organism of a woman undergoes in pregnancy, Dr. Sirédey observes that puerperal patients, like those wounded or operated on, do not generate the germs of septicæmia in themselves, and experience has shown him the contagiousness and transmissibility of puerperal affections, the parturient women becoming infected through the mediate or immediate contact of organic substances in a state of putrefaction, or at least through the influence of the lochiæ or débris of placenta vitiated by their contact with the air. The cause of the infection, according to Dr. Sirédey, is constantly appreciable, independent of the disease itself, and he adds that it is therefore impossible to deny the existence of a heterogeneous infectious principle, whatever name may be given to it, whether it be conveyed by the hands of the accoucheur, by instruments, or articles of dressing, or by the air. As to the nature of this morbid agent, Dr. Sirédey leaves it to the microbiologists to discover; but, as a clinician without any preconceived prejudice, he dwells upon the importance of protecting the wounds of the genital organs, as it is only by doing this that parturient women can be secured against the accidents so much to be dreaded. Dr. Sirédey in conclusion states that if the etiology of puerperal affections is traced to a single cause, this cause still remains very vague and complex, as it borrows its origin from elements the most varied, and which produce effects so different. "We are therefore far from an infectious malady properly defined, or a pyrexia, such as was understood by the ancient authors. For instance, variola is constantly due to germs emanating from variolous subjects, in the same way as the measles would be generated by germs proceeding from patients suffering from that affection, and in these cases the evolution of the accidents follow the different phases identically in each class of subjects. The same cannot be said of puerperal diseases, which may be classed among infectious maladies, but side by side with surgical affections which, like the former, are vague and ill-defined."

Starting from these principles, Dr. Sirédey reduces the therapeusis of puerperal affections to the observance of simple hygienic measures, and the application of remedies that may be required to fulfil certain indications which are similar to those in surgical cases. He attaches the highest importance to prophylaxis, and condemns the use of uterine or vaginal injections—that is, as mere routine practice—and in this he is borne out by most obstetricians in this country.

Dr. V. Audhoui, physician to La Pitié Hospital, in writing on the same subject, questions the utility of antiseptics so much in vogue, whether internally or externally, and strongly insists on the strictest observance of simple prophylactic measures: scrupulous cleanliness, well-ventilated rooms, good food, etc.; adding that if ever the aphorism, "prevention is better than cure," had any real import, it is peculiarly applicable to puerperal fever, for when once a patient is affected with the malady, all the antiseptics in the world would be of no avail. He moreover strongly recommends that the uterus should be meddled with as little as possible, whether externally or internally, and he sums up with the following salutary advice: "Learn to wait and touch not." This would seem to tally in every respect with the plain and common-sense rules so opportunely given by Dr. A. E. Dugas in his letter, which was published in THE MEDICAL RECORD of the 8th instant.

In a recent clinical lecture at La Charité Hospital, Professor Hardy warned his hearers of the dangers of the use of salicylic acid in the treatment of typhoid fever, adding that in this affection there often existed a latent myocarditis which contra-indicated the administration of hyposthenisants of the heart. Professor Hardy grounded his fears on a fatal case which lately occurred in his ward. The case was that of a female patient who was the only one to whom he had ever administered salicylic acid in typhoid fever. She died suddenly, and was the only patient he had lost in this way. Whether it was a mere coincidence or not he could not say, but from the increasing number of accidents that have occurred with this drug caution is necessary.

Dr. Sirédey has been elected member of the Paris Academy of Medicine in the Section of Medical Pathology.

NATURE *VS.* SCIENCE IN OBSTETRIC PRACTICE.

TO THE EDITOR OF THE MEDICAL RECORD.]

SIR: It has been quaintly said, that one engaged in the practice of medicine "is either a doctor or a fool at forty." If this be true, then I am somewhat of a doctor, or I have been conspicuously acting the fool for nearly twenty years; and if I have, I now propose "to tell it in Gath, and to publish it in the streets of Askelon."

For thirty-three years, Mr. Editor, I have been actively engaged in the general practice of medicine. Indeed, one-third of a century. All of this time, except three years, in this immediate vicinity, a beautiful inland city with a resident population of about three thousand. The country round about is well populated with white and black inhabitants. This place is pleasantly located upon an elevated plateau six hundred feet above the sea level. The dwellings of the white population are well ventilated, the yards and grounds are large and commodious. The hygienic surroundings of the colored people not so favorable, often four or five crowded into one small room. Conditions auspicious for the development and spread of infectious and contagious diseases, among which we see practically demonstrated the probably infectious nature of phthisis pulmonalis, verifying in a limited degree, the theory of Prof. Koch as to the contagious or infectious nature of consumption. This by way of digression. But to the main issue. Now, Mr. Editor, I ask for a personal indulgence, and beg pardon of your readers for any allusion to self, as what I have to say of myself is done in no spirit of egotism, but to acquaint you somewhat with me and to assure the profession that I speak as one of them, and that I give out no uncertain sound. In the winter of 1848 and 1849 I attended my first course of medical instruction at the University of New York, and under the obstetrical direction of Professor Gunning S. Bedford. The winter of 1849 and 1850 I was at the University of Pennsylvania, and there had the teaching of that eminently conservative man, Professor Hugh L. Hodge. In April, 1850, I received a medical diploma from the university. Since that time I have had as a life-work the general practice of medicine.

I can safely say I have been the personal attendant of five hundred cases of obstetrics. In all of this time I have never had the case of a woman in labor to die undelivered. When but a tyro in the profession, I was forcibly impressed with the truth, as expressed by the original and logical Blundell, that "no woman in labor should ever die without being delivered." I have never used the obstetrics forceps. Hodge told me to have my forceps, but be sure and leave them in my office. The result has been, the forceps still in the office, and I have succeeded thus far without their use. In my own practice I have had three cases of craniotomy. I have

assisted professional friends in four other cases. I hope, for woman's and for conscience sake, never to have another. An advocate for the forceps, perhaps, may say the forceps ought to have been used. In most of the craniotomy cases the child was dead. I have had five well-defined cases of puerperal peritonitis, four cases of puerperal metritis, two cases of puerperal eclampsia, two cases of endometritis, and one case of pelvic cellulitis. I lost one case of eclampsia after delivery, and the only case I ever lost within the parturient month.

Is this record too good for publication? Criticised as it may be, it is nevertheless true. This is written not in a spirit of boasting, but in thankfulness. In the practice of midwifery the accoucheur should have a proper knowledge of the subject (to this extent art and science are of great necessity), and then be gifted with patience and sound common sense. A good maxim, "Hasten slowly." In ordinary or natural labor there is but little to do, or that should be done. Some manual aid is all that is usually necessary. The process of labor being purely natural, then meddlesome midwifery before and after delivery can only work harm. From the teachings of modern scientific obstetricians, the whole process of human delivery is abnormal; and the unfortunate woman should be dealt with as though she had undergone a capital surgical operation. With this new idea the astonishment is that so few women die and so many are living refutations as to the error of the theory. God is too merciful, and God thought nature too conservative to command the human family to "be fruitful, multiply, and replenish the earth" at such a tremendous risk as "advanced obstetric science" tells us is involved in the effort of human delivery and its subsequent results. Is parturition attended with so much peril in New York City and other cities in the Middle and Eastern States as some of our medical writers tell us? Then we gladly invite her people southward, to a land beautified with roses in December, with orange fields and queenly magnolias; a land genial in climate, hospitable in home; with a people refined and cultivated, and where her women can accomplish their grand mission work, giving birth, without feeling fear and realizing that they must pay as a forfeiture their own precious lives. If the statements made by some be half true, no woman in sound mind would voluntarily consent to become a mother. Indeed, the terror becomes so appalling that even the physician would shrink from the duties of the lying-in chamber. Is it possible that the profession at large is to accept and practise the obstetric art as taught by the advanced thinkers, or be considered obsolete, behind the age, as neglectful and incompetent? I believe I know that the profession, outside of certain localities and favored circles, will not consent to such a decision. I am glad to tell you, Mr. Editor, that there is no necessity for such an ado for our lying-in women in any part of this State with which I am acquainted.

If it were so, sad would be the fate of our parturient women, not one in the thousand could be furnished according to modern obstetric demands, and only one in the thousand financially able to compensate a medical attendant. No royal fees here. Very few of the population independent, the majority poor and poorer; many of them not ready money enough to pay for the boracic acid the doctor needs for his bath, leaving out German Cologne and Lubin's Extracts. New Yorkers may need all of this grand lying-in preparation and precaution, and if so I am glad their pecuniary condition is so good that they are able and willing to afford it, and then to pay their professional attendants money enough to live in princely style, furnish their wardrobes to repletion, to say nothing of bodily disinfectants and handkerchief extracts. All physicians, even with us, recognize the general necessity in all cases of bodily cleanliness, comfortable apartments, and ordinary hygienic attention.

Many of our women among the poorer classes, especially with the blacks, have not even ordinary comforts. Often but one bed for the family; scanty supply of clothing; poor diet. No disinfectants but water, sunlight, and a bountiful supply of oxygen, furnished free to us all in our wholesome air. Yet under such adverse circumstances it is a remarkable event to hear of a woman dying in the parturient month. Why this difference? Have our women more vigorous constitutions? Are our physicians less meddlesome? Do the city doctors take their cases out of the hands of nature and make them their own cases? If this be true, no wonder then the record tells of such fearful havoc. There is a grand underlying principle which should control every medical man, whether in surgery, obstetrics; or in the practice of medicine, that nature, the *vis vitæ*, the dynamic force, is a grand conservator, and has an important, yea, a necessary part to perform in every cure, an enabling force in the recovery from all the ills "which frail human flesh is heir to." This is a God-given capacity, and in every human body that tends to resist disease and, when assailed, to recover, in many instances without medical help.

Professor Forbes left a valuable legacy to the profession in his little volume, "Nature and Art in the Cure of Disease."

I fear that some of our city doctors make trouble in their obstetric practice because they assume to be wiser than more skilful, uneducated nature. Too much knowledge may be dangerous. I know that this is a day of great progress, rapid movement. Time and space seem nothing, almost annihilated, things of the past.

Science with a Samson-like tread moves apace. It is proper that the medical profession should keep well abreast with the age; but the doctor must not become materialistic and relegate everything, even the human body, to cold, abstract science. This human body is a divine temple, not simply matter, but a grand, complex organism, and somewhere enclosed in it a jewelled aspiration that seeks out an immortality. In his zeal for reputation the doctor must not overleap the bounds of prudence and, when this poor human body is in sufferance, make new difficulties and more complications, then sound a fog-horn, an alarm-bell, that others may recognize them as advanced thinkers, profound physicians, skilful experts, teachers of other but more conservative men. In conclusion, Mr. Editor, let me say to you and to others, that I write in no vindictive spirit, but for the elimination of truth. I am willing to "render unto Cæsar the things that belong to Cæsar." "Let justice be done though the heavens fall." The chaff is mine, burn it; the wheat, if any, is yours, and belongs to the profession.

W. J. Gautier, M.D.

Tuskegee, Ala., March 15, 1884.

The Nez Perces on the Indian Reservation Dying Out.—Dr. Woodward, an intelligent young physician employed by the Government, resides among the Nez Perces, and divides his time between them and the Poncas. He has charge of the commissariat and a general oversight of affairs. In reply to a question put by a reporter, he said: "Their fate is inevitable. They are doomed. They must dwindle down and become extinct. And this is not only true of them, but it is true of other Indians. Look at the Pawnees. When they came here in 1875 they numbered 2,630; they now number 1,219. The Nez Perces came three or four years ago, numbering 430; they now number 320. I came here in 1881 from Nebraska, and we brought one hundred head of horses. In four months thirty-six of them died. I take my quinine almost as regularly as I take my meals. Malaria, pneumonia, and consumption are their prevailing diseases. Last year I gave them over a hundred ounces of quinine. There are but three young children among them."

Army and Navy News.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, United States Army, from March 23, 1884, to March 29, 1884.

HAMMOND, JOHN F., Colonel and Surgeon. Now in New York City on sick leave of absence, will, after the expiration of his sick leave, await orders in that city. S. O. 70, par. 8, A. G. O., March 26, 1884.

GANDY, CHARLES M., First Lieutenant and Assistant Surgeon. Assigned to duty at Fort Brady, Mich., as Post Surgeon. S. O. 56, par. 6, Headquarters Department of the East, March 22, 1884.

Official List of Changes in the Medical Corps of the Navy, during the week ending March 29, 1884.

GREEN, E. H., Passed Assistant Surgeon. To the Greely relief steamer "Thetis."

MARSTELLER, E. H., Passed Assistant Surgeon. To the receiving ship "Colorado," at New York.

BRYAN, J. H., Passed Assistant Surgeon. Resigned. To take effect April 10, 1885, with leave of absence till that time, and permission to leave the United States.

RUSH, C. W., Passed Assistant Surgeon. To the Naval Academy.

Medical Items.

CONTAGIOUS DISEASES—WEEKLY STATEMENT.—Report of cases and deaths from contagious diseases reported to the Sanitary Bureau, Health Department, for the week ending March 29, 1884:

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Cases.								
March 22, 1884.....	3	7	93	5	57	31	0	0
March 29, 1884.....	7	6	88	9	71	32	0	0
Deaths.								
March 22, 1884.....	3	3	22	5	8	15	0	0
March 29, 1884.....	3	3	11	8	11	17	0	0

THE AIR OF NEW YORK CITY IN 1679.—Charles Wooley, A.M., says, in his two years' journal in New York, of the air: "It's a Climate of a sweet and wholesome breath, *free* from those annoyances which are commonly ascribed by Naturalists for the insalubrity of any country, viz.: South or southeast winds, many stagnant Waters, lowness of shoars, inconstancy of weather, and the excessive heat of Summer; for its point or extremity is gently refreshed, fanned and allayed by constant breezes from the sea. New York does not unwelcome its guests and strangers with the seasoning distempers of fevers and fluxes, like Virginia, Maryland, and other Plantations, for nature kindly drains and purgeth it by Springs and Fontanels and Streams and Issues of running waters in its irriguous Valleys; and shelters it with the umbrellas of all sorts of Trees, from pernicious Ponds and Lakes; which Trees and Plants do undoubtedly, tho' insensibly, suck in and digest into their own growth and composition those poisonous subterraneous Particles and Exhalations, which otherwise would be attacked by the heat of the Sun, and so become matter for infectious Clouds and malign Atmospheres; and tho' we cannot rely upon these causes as permanent and continuing, for the longer and the more any country is peopled, the more unhealthful it may prove, by reason of Jacques [privies], Dunghills, and other excrementitious stagnations and accumulations, which offend and annoy the bodies of Men, by incorporating with, and infecting the circumambient Air: still these inconveniences can scarce be supposed to happen within our age, for the very settling and inhabiting a new country, which is commonly done by destroying its Wood, and that by Fire, does help to purifie and refine the Air: an experiment and remedy formerly used in Greece and other Nations in time of Plague or any common infection. But it is better not to have Jacques and Dunghills uncared for. To conclude this chapter, I myself, a person seemingly of a weakly stamen and a valetudinary Constitution, was not in the least indisposed in that climate during my residence there, for the space of 3 years. This account and description of New York, I recommend as a fair encouragement to all who are inclined to Travel; to which I shall subjoin other inviting Advantages and Curiosities in their proper places."

GUN-SHOT WOUND IN A CHILD OF EIGHT MONTHS—AMPUTATION.—Dr. E. B. Ward, of Greensboro, Ala., sends us the history of a peculiar case of gun-shot injury. An infant of eight months was accidentally shot in the forearm, a charge of bird-shot lacerating the extensors, splintering the bones and elbow-joint. The infant recovered from the shock. Twenty-four hours after the injury Dr. Ward amputated the arm just above the elbow. The operation had to be performed without intelligent assistance, but the patient made an excellent and rapid recovery.

TAURET'S MERCURIC IODIDE TEST FOR ALBUMEN.—Some mistakes have been made in giving Tauret's formula, which is as follows:

℞.	Hydrarg. bichlorid.....	1.35
	Potas. iodid.....	3.32
	Acid. acetic.....	20.
	Aq. destillat.....q. s. ad.	100.

M.

The precipitate of peptones or alkaloids, if present, is dissolved by heat. It is not necessary to acidulate the urine first.

OSMIC AND PEROSMIC ACID.—A correspondent inquires the difference between osmic and perosmic acid. The terms have been used interchangeably by the German writers. The formula is $Os O_4$.

INFLUENCE OF THE OVARIES IN THE DETERMINATION OF SEX.—Dr. Richard Neale writes to the *British Medical Journal*: "Among the many theories regarding the determination of sex, is one broached or supported by Mr. Thomas Tuckey, that the right ovary is for males, and the left for females. On the 5th instant I delivered a lady, upon whom left ovariotomy was performed, in January, 1883, of a male child. Dr. Hamilton, in the *Lancet*, page 191, records a case where two males were born after the removal of the right ovary, the patient having borne two female children previous to the operation. These cases refute the ovular theory."

SOUTHERN MEDICAL COMMENCEMENTS.—The blood courses warmly through the veins of our Southern brethren; even college commencements are an excitement. Witness: "After Dr. S——'s address the audience was again entranced by the beautiful music of one of the most delicious medleys this paragraph slinger ever heard. Suffice it to say that it began with 'Dixie' and ended with 'Auld Lang Syne.'" As for the orator of the evening, "He glanced with a rapid but penetrating gaze upon the tremendous forces which are centralized in the present era, when science, literature, and the arts are scattering their jewelled trophies in the pathway of the aspirant for fame or fortune," etc.

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Original Articles.

SOME REMARKS ON THE ACOUSTIC PHENOMENA PRODUCED BY THE FLOW OF FLUIDS IN TUBES,

AND ALSO UPON THE SITE AND MECHANISM OF CARDIAC FUNCTIONAL MURMURS.

BY A. BRAYTON BALL, M.D.,

VISITING PHYSICIAN TO ST. LUKE'S AND BELLEVUE HOSPITALS, NEW YORK.

RENEWED interest in the subject of functional cardiac murmurs has been awakened recently by a discussion of certain controverted points in the *Edinburgh Medical Journal* and the *British Medical Journal*. The object of the present paper is, first, to review briefly the more important experiments which have been made during the past half century, to determine the acoustic conditions of cardiac murmurs; and, secondly, to present the main points of the controversy alluded to.

Laennec, as is well known, made the singular blunder of supposing that the bellows-murmur heard over the heart and arteries was due to spasm of their muscular structure, and not to the motion of their fluid contents. "On many occasions," he says,[1] "I have been struck with the complete resemblance of the sound produced by muscular contraction and that of the bellows-sound. In resting the ear upon a pillow, if we contract the masseter muscles, or rather if we contract and relax them alternately, we give rise to sounds precisely like the bellows-sound of the arteries. In the following experiment the resemblance is more perfect still: If we place the stethoscope upon one of the condyles of the humerus of a person whose arm is supported by an assistant, and then cause the individual to bend and extend the arm gently, we perceive a sound exactly similar to that produced by the blast of a pair of bellows." The obvious objections to this theory led Dr. Corrigan,[2] of Dublin, to reinvestigate the subject in 1829, and to him we are indebted for the discovery of the most frequent factor in the production of cardiac murmurs, viz., obstruction in the blood-channels. Corrigan held that the movement of the column of blood in health differed from that of an ordinary current, the blood being propelled *en masse*, while in an ordinary current "the particles that constitute the body of the stream move at different rates, those at the centre with the greatest velocity, and at varying degrees of rapidity as they recede from it, or may meet with obstacles: a compound motion is thus produced, a movement of the whole mass forward, and with it an irregular motion of the constituent particles within themselves, and against the side of the conduit or channel. In the living body in rude health, the arteries being always quite full and equally distended, and the heart's action being regular, the blood cannot assume the motion of a current, but must ever move in the way already described. If by any means the regularity of the heart's motion be interfered with, or the full and equal distention of the arteries obstructed, the motion of the blood becomes that of a current, and at the same instant *bruit de soufflet* and *frémissement cataire* become evident."

"It occurred to me," he continues, "that I might be able to put my views to the test of direct experiment. One end of a length of small intestine was attached to a pipe, and a current of water of considerable force allowed to run through it. While the intestine was kept full and tense, the finger laid upon it received no sensation, any more than if it were laid upon a portion of the same intestine containing fluid at rest; but constriction being made at any part, then immediately below the narrowed part where the intestine was no longer tense, and where, for the reasons already gone into, the motion of the fluid became very different from that through the upper portion of the tube, a sensation was felt precisely resembling *frémissement cataire*. No similar sensation was felt above the constriction. The same thing took place with the sound heard by the stethoscope. While the intestine was tense, no sound, or a murmur exceedingly indistinct was heard; but any part being constricted, so as to produce an alteration in the motion of the fluid, a very loud *bruit de soufflet* immediately became evident."

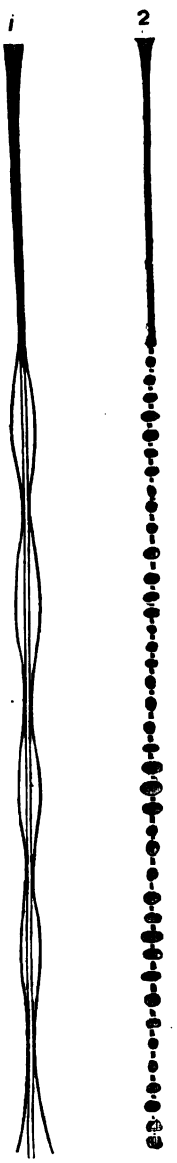

FIG. 1 represents the fluid vein as seen by the naked eye. FIG. 2.—The same vein illuminated by flashes of electric light, and showing the individual particles. (Taken from Tyndall on Sound.)

Two important facts were demonstrated by this experiment; first, that the main factor in the generation of the murmur is an obstruction to the flow of the fluid; and second, that the sound becomes audible, not at the seat of constriction, but in the dilated part beyond.

In 1833 Félix Savart[1] published the results of a series of brilliant experiments, which appeared to throw much light upon the mode of causation of these murmurs. Savart showed that when water is allowed to escape through a circular orifice in the bottom or at the side of a vessel, the emerging column forms a sonorous liquid vein ("veine liquide sonore"), which presents certain remarkable peculiarities. Below the opening the fluid descends for a time in a transparent column, gradually decreasing in diameter until it reaches its point of maximum contraction. Below this point the vein becomes turbid, and alternate swellings and contractions are noticed. When illuminated by successive flashes of electric light these alterations in diameter are seen to be produced by the resolution of the vein into liquid spherules, which, as they descend, change their form graduallyfrom that of prolate spheroids with their longest axis vertical to that of oblate spheroids with their longest axis horizontal. The quivering motion produced by these changes, when it is forcible enough, generates an audible murmur. The same motor and acoustic phenomena are observed whether the fluid escape into the open air or pass from

[1] A Treatise on Diseases of the Heart and on Mediate Auscultation. Translated by John Forbes. Fourth Edition, p. 519. London, 1834.

[2] Inquiry into the Causes of "Bruit de Soufflet," and "Frémissement Cataire." Lancet, April 4, 1829. Pp. 1, 33.

[1] Mémoire sur la constitution des veines liquides lancées par des orifices circulaires en mince paroi. Annales de Chimie et de Physique. Second series, vol. liii., p. 337. Paris, 1883.

a constricted into a dilated part of a tube. Savart's fluid vein has played an important part in the interpretation of cardiac murmurs, but the claim that it is the efficient cause has not gone unchallenged, as will appear later.

In France the clue afforded by Savart's experiment was applied by Chauveau, in 1858,[1] in his investigation of vascular murmurs by experimentation on horses. His conclusions were substantially the same as those obtained by Corrigan. He found that the murmur was generated beyond the constricted part of the vessel, and was carried forward in the direction of the current; but he also demonstrated the fact that the chief element in the production of murmur was the rapidity of the current, and that the size of the orifice was important only in so far as it influenced the rate of flow. The same causal relation he found to be true also of the quality of the fluid. Still, Chauveau regarded a certain amount of constriction or dilatation in the vessel as essential, and as presupposed by the very existence of a murmur. Indeed Savart's theory, which he accepts, does not provide for the occurrence of murmur except in this condition.

In 1854, four years, therefore, before Chauveau's article, and apparently without Chauveau's knowledge at the time he published the results of his own investigation, Heynsius,[2] of Leyden, made another contribution to the study of the subject, viz., a new explanation of the vibratory motion of the fluid in the dilated part of the tube. His theory, it will be seen, differs essentially from that of Savart, and resembles, in many points, that already presented by Corrigan. In order to make the motion of the current visible he mixed powdered amber with the fluid, and then found that when the column of liquid passes from the constricted into the dilated part of the tube the central portion of the fluid preserves, in the main, its original direction, while the lateral portions form eddies (*tourbillons*) in a direction opposed to that of the general current.

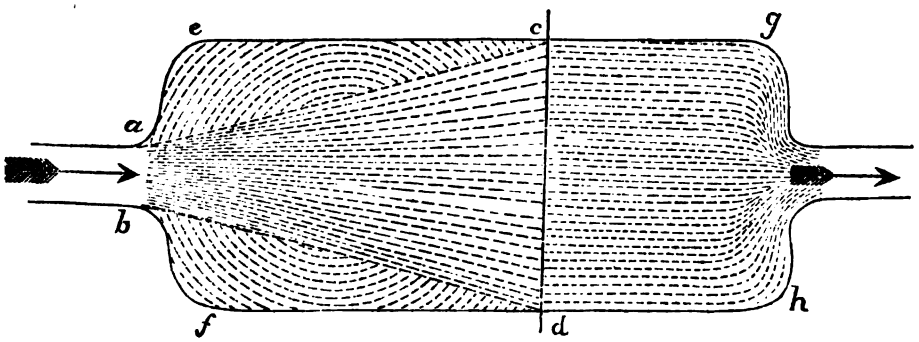

FIG. 3.—Diagram representing the *tourbillons* of Heynsius. *a b c d* is the column of fluid entering dilated part of the tube; *a c e* and *b d f* are the lateral eddies or *tourbillons* with a reverse current toward point of entrance. The sharply defined limitations between the central column and the *tourbillons* are of course purely diagrammatic.

These *tourbillons*, or lateral eddies, Heynsius supposes are produced in the following way: The stream as it enters the dilated part encounters on both sides fluid particles, which are pursuing their course more leisurely, and are drawn into the current by the force of the molecular cohesion between the individual particles. This process will take place naturally with most activity near the point of entrance, where the rapidity of the current is greatest, since the cohesive attraction diminishes as the stream becomes slower in its expansion to fill the dilated part of the tube. Fluid particles are thus being constantly withdrawn from the triangular spaces *a c e* and *b d f* in the diagram, on either side of the entering column of fluid, and as this withdrawal is greatest near the point of entrance, a reverse current is established toward the part where the loss is going on most actively. In confirmation of this explanation Heynsius found that there was a marked diminution in the lateral pressure on the sides of the entering column as compared with that in the general current.

That the murmur is due to vibrations in the fluid, and not to vibrations excited primarily in the tube-wall by friction, Heynsius proved by producing murmurs in *glass* tubes in place of the flexible tubes used by previous investigators—in tubes, therefore, in which, by reason of their smooth surface and rigid material, vibrations could not be produced readily by friction. He also confirmed the observation of Corrigan and Chauveau, that the murmur is heard loudest in the dilated part of the tube, and not at the point of constriction, where the friction is, of course, the greatest.

The friction theory—that is, the theory that the acoustic vibrations originate in the wall of the tube—has, however, not been without its advocate. Thus Weber,[1] in 1855, denied the possibility of the production of murmurs in fluids on account of the comparative incompressibility of the latter, and held that the acoustic vibrations were produced in the tube-wall in the same way as the strings of a violin respond to the pressure of the bow. "As the violin-bow," he says, "must be pressed with a certain force upon the strings, and be drawn over the same with a certain rapidity in order to produce a tone, so a certain pressure and a certain rapidity are necessary to produce a murmur in tubes." The fallacy of this theory has been shown already in part, and need not detain us now, as the full proof will appear from the experiments of Nolet, to be mentioned later. Weber's chief contribution is his discovery of the important fact that with a sufficiently strong current murmurs may be generated even in a tube of *uniform diameter*, that is, in a tube in which there is no transition from a constricted to a dilated part of the tube—a condition regarded as essential by previous investigators. Heynsius failed to discover this fact, apparently because, as Nolet points out, his apparatus was not adapted to supply a current of sufficient rapidity to produce a murmur, except where the presence of a dilatation in the tube afforded favorable conditions.

Marey,[2] in 1863, regards the murmur as originating in the vibrations of the fluid, but expresses no opinion whether the acoustic phenomena are due to the "fluid vein" of Savart or to the *tourbillons* of Heynsius.

In 1869, Thamm [3] reviewed the subject in the light of his own experiments, and confirmed Heynsius' theory that the vibrations originate in the fluid, and not in the tube-wall as Weber supposed. He found, also, that murmurs could be produced in tubes of uniform diameter by increasing the rapidity of the current, and that, therefore, changes in the lumen of the tube are not essential to the development of acoustic phenomena. In tubes of uniform diameter he saw that when the current was sufficiently rapid only the particles of the central portion of the fluid pursued parallel directions, while the peripheral portions described irregular curves in a reverse current.

In 1871 Nolet,[4] of Leyden, made a thorough reinvestigation of the subject. Like all previous observers he found that the murmur was heard loudest beyond the constricted point; but he heard it also, though less dis-

[1] Études pratiques sur les murmures vasculaires ou bruit de soufflet, et sur leur valeur sémeiologique. Gazette Médicale de Paris, pp. 247 et seq.

[2] Hydrage tot eene physische verklärung van de abnormale geruischen in het vaatstelsel. Ned. Lancet, iv., s. 20. 1854.

[1] Physikalische und Physiologische Experimente über die Entstehung der Geräusche in den Blutgefässen. Archiv. für Physiol. Heilkunde, Bd. xiv., s. 41. 1855.

[2] Physiologie médicale de la circulation du sang. Paris, 1863.

[3] Beiträge zur Lehre über Venenpuls und Gefässgeräusche. Inaug. Diss. Königsberg, 1868. Also, Berliner klinisch. Wochenschr., 1869, No. 15.

[4] Zur Lehre der Gefässgeräusche. Arch. der Heilkunde, 1877, s. 26. I desire to acknowledge my indebtedness to this exhaustive article for much historical information.

tinctly, on the near side of the constriction. Over the site of the constriction the murmur was inaudible, and this fact Nolet regards as irreconcilable with the supposition that the murmur is produced by friction and vibration of the tube-wall. Moreover, were this the explanation, the murmur should be modified by the material of which the tube is composed, which is not the case, as the murmur is produced without modification of character in metal or glass tubes, as well as in tubes with distensible walls. For these reasons he concludes that the cause of the murmur is to be sought in the fluid itself.

The question as to the nature of the sound-producing vibrations in the fluid, Nolet admits is not so easily settled, but accepts the *tourbillon* theory of Heynsius as affording the only explanation which accords with observed facts. That the "fluid vein" of Savart is not the cause of the murmur, he thinks is proved by the following considerations:

1. In tubes of uniform diameter. Recent experimentation has shown beyond question, that in a tube of uniform diameter a murmur may be produced if the current be sufficiently rapid. In such a tube the condition necessary for the formation of a fluid vein obviously exists only in the escaping column at the extremity of the tube. If the murmur originated here, and not in the course of the tube itself, the roughness or smoothness of the internal surface of the tube-wall ought to have no influence in determining the degree of rapidity necessary to produce the sound, whereas the contrary is the case. In rough rubber tubes less rapidity is necessary than in smooth ones, while in metallic tubes much greater rapidity is required. Moreover, in tubes of uniform diameter the murmur has the same intensity throughout the whole length of the tube. If the murmur were produced by the outflowing stream, the intensity of the sound should diminish in proportion as we recede from the point of outflow.

2. In tubes with changed diameter. If a broad rubber tube be joined to a narrow one of considerable length, the extremity of which dips into a vessel containing water, and the current be regulated so as to produce a strong murmur on the distal side of the constriction at the junction of the two tubes, scarcely any murmur will be heard where the narrow tube enters the water. If the outflowing stream were the cause, the murmur at this point should be just as strong as elsewhere in the course of the narrow tube.

Nolet found, moreover, that in rubber tubes of uniform diameter the current-rapidity necessary to produce a murmur was not very much greater than the normal velocity of the blood as it passes through the aortic orifice; the latter rate being estimated at 1,548 millimetres per second, while the requisite velocity in rubber tubes was only 2,607 millimetres per second. Although this experiment cannot be applied without some reservation to the explanation of the so-called anæmic murmurs in the aorta and pulmonary artery, it is at least highly probable that mere rapidity of current plays a more important part in the production of such murmurs than has been commonly supposed. Changes in the lumen of the blood-channels undoubtedly favor the generation of acoustic phenomena, and such changes are the main factor in securing the requisite velocity in most cases of cardiac organic murmurs; but it is no small gain to our knowledge that in anæmic murmurs we are not compelled to assume the existence of abnormal alterations in the lumen of the blood-channels, as is implied in the acceptance of Savart's theory. In anæmia there are special conditions favoring an unusually rapid flow of the blood, such as the watery quality of the fluid and the irritable action of the heart, particularly during periods of excitement. Chauveau supposed that in aortic and pulmonary murmurs of anæmic origin there was a relative dilatation of these arteries as compared with the heart cavities, which had diminished in size to accommodate themselves to the lessened quantity of blood. We now know that in cachectic conditions there is a tendency to dilatation rather than to contraction of these cavities. Nolet's experiments enable us to explain such murmurs without hypothetical relative changes in the diameter of the blood-channels.

In our remarks upon the site and mechanism of cardiac inorganic murmurs we shall confine ourselves mainly to the questions involved in the interpretation of the temporary murmur heard in cachectic conditions in the second and third intercostal spaces so far to the left of the sternum as to render doubtful the origin of the sound in the pulmonary artery. The following case will serve to bring the points at issue more clearly before us.

M. S——, female, single, aged seventeen, Ireland, servant, was admitted to my service in St. Luke's Hospital October 30, 1883, suffering from chlorosis. Had an attack of tertian intermittent fever in the winter of 1883. For several months has been very anæmic, and subject to palpitation and dyspnœa on exertion. Never has had rheumatism or any pulmonary affection. On admission patient presents the typical appearance of chlorosis: well-marked panniculus adiposus, pronounced pallor of skin and mucous membranes; palpitation and dyspnœa on exertion; menstruation regular, but scanty; no cough; pulmonary physical signs normal; no enlargement of liver or spleen; examination of urine negative; apex of heart beats in fifth interspace half an inch to right of left nipple, no enlargement discovered; no murmur heard at apex, or in axilla, or at angle of left scapula, or in the aorta or carotids. In the second intercostal space, one and a half inch to the left of the sternal border, is seen a distinct pulsation, over which can be heard a soft systolic bellows-murmur, perceptible also in the third space, but shading off rapidly in all directions, and heard with distinctness only over a region of about two or two and a half inches in diameter. The greatest intensity of the murmur was found by repeated examinations to be situated exactly at the point indicated. Well-marked venous hum heard over internal jugulars, especially on the right side of the neck. Under the free use of iron, patient's health rapidly improved, the anæmia disappeared, the murmur gradually became fainter, and finally vanished completely about a week before her discharge on December 5th. She was seen again two months afterward, and no trace of the murmur was then audible.

The not infrequent occurrence of a murmur in this situation, with tolerably sharply defined limits, and unaccompanied by murmur elsewhere, did not escape the acute observation of the late Dr. Latham. In one of his admirable clinical lectures, published in 1845,[1] he gives the following description of a murmur, which corresponds in its situation and general character with the one under consideration:

"Fancy a line," he says, "drawn from the left side of the sternum along the upper edge of the second costal cartilage, and continued an inch along the second rib; and another line drawn from the sternum along the lower edge of the third costal cartilage, and continued one inch along the third rib. Between these two lines a space is included, in the whole or in part of which a murmur is often audible coincident with the systole of the heart, when no such murmur can be perceived either in the præcordial region, or in the course of the aorta, or in the carotids, or in any part of the arterial system, but here and here only. It is a gentle bellows-murmur, quite obvious to the ear and unmistakable in its character.

"Of such a murmur, often audible in this situation exclusively, I am certain as a matter of fact, and certain, too, of its very remarkable accompaniments. I have witnessed it either in those who were undeniably consumptive, or in those who were too justly suspected of being so. I cannot say in what proportion of the phthisical it occurs; but I am continually meeting with it." Latham has apparently no doubt that the pulmonary

[1] The Collected Works of Dr. P. M. Latham. The New Sydenham Society, vol. i., p. 40. London, 1876.

rtery is the point of origin of the murmur, but confesses his ignorance whether "it becomes such in consequence of its own disease or by reason of pressure or impediment reaching it from the diseased being." Although the relation of impoverishment of the blood to the generation of cardiac and arterial murmur was well recognized even in his day, Latham appears to have have had no suspicion that this definitely located murmur could be produced by this cause. The situation of the murmur, so far to the left of the sternum led him to conclude that the murmur was caused either by a morbid condition of the artery itself, or by consolidation of the lung conducting the sound to some distance beyond the valves.

A murmur in this situation was subsequently noticed in many cases of mitral regurgitation in connection with an apex murmur by Skoda, Meyer, Bamberger, Gerhardt, and others. Meyer explained the murmur in the second intercostal space in these cases by supposing that the acoustic vibrations were transmitted from the mitral valves to the wall of the pulmonary artery; but if solid media were the means of conduction the sound ought to be heard rather in the aorta, because the fibrous ring to which the mitral valves are attached connects them with the aortic orifice, and not with the pulmonary ostium. Bamberger's theory, that the murmur is due to dilatation of the pulmonary artery from continuous over-distention, is excluded by the fact that the murmur in the pulmonary area is not found in mitral stenosis, where the same condition is also present. In 1868 Naumyn,[1] in a brief and very modest article, advanced a new explanation, which immediately attracted wide attention, and in Germany, at least, has since been accepted very generally as proving the connection of the murmur in the pulmonary area with regurgitation though the mitral orifice. Naumyn maintained that in mitral regurgitation not only the left auricle, but its appendix as well, is dilated, and that the latter not infrequently, under such circumstances, winds round the pulmonary artery, and comes into contact with the wall of the chest about one and a half inch to the left of the sternum, where an actual impulse can be seen if the impact be forcible enough. The conduction of the murmur of mitral regurgitation to the point indicated may easily be accounted for, therefore, provided the approach of the left appendix to the chest-wall could be proved. To satisfy himself on this point Naumyn thrust needles into the thorax, perpendicularly to the chest-wall, at the point where the murmur was heard loudest during life, and found that they entered the appendix of the left auricle where it bends around the pulmonary artery. It is implied in this statement that the appendix was in more or less close proximity to the thoracic parietes, but no details on this point are given. The importance of fuller information in this particular will be seen later.

Among English writers Balfour,[2] of Edinburgh, was the first to apply Naumyn's observation to the interpretation of *inorganic* murmurs. The essential points of Balfour's theory of this class of murmurs may be briefly stated as follows: He regards the distinction made by Walshe, and since followed by most writers, between hæmic and dynamic murmurs, as essentially misleading. According to this classification the true murmurs of anæmia are invariably basic, and originate in the aorta and pulmonary arteries. The anæmic murmur is, therefore, an arterial, as distinguished from a true cardiac murmur, which is generated within the heart itself at either or both of the auriculo-ventricular orifices. That temporary systolic murmurs do occur in the latter situation, independently of lesions recognizable after death, has always been recognized; but they were regarded as etiologically distinct from murmurs of hæmic origin, and a separate class was, therefore, erected for them, viz., that of dynamic murmurs, in the interpretation of which many ingenious hypotheses have been advanced. This distinction, which has been the source of endless perplexity, Balfour proposed to do away with completely, and to explain all the murmurs of inorganic origin by the direct or indirect results of impoverishment of the blood. In the large class of diseases which are not infrequently accompanied by cardiac functional murmurs—in chlorosis, which may be regarded as a type of anæmic affections, as well as in febrile disorders, such as typhus, enteric fever, erysipelas, etc.—the defective nutrition noticed in the musculature of the body in general produces also a flabby and relaxed condition of the cardiac muscle, and may thus lead to the temporary establishment of patency of one or both of the auriculo-ventricular orifices. This valvular insufficiency may result either from a simple dilatation of the ventricular cavity; or the papillary muscles, which, as Friedreich[1] has shown, are specially subject to atrophy and degeneration, may become weakened so as to be unable to close the auriculo-ventricular valves; or, as Macalister[2] supposes, the enfeebled base-muscles, instead of squeezing the ostia into something near their systolic shape and size, preparatory to the complete closure by the valves, may do their work incompletely, and thus the valves may prove inadequate because "they are asked to close bigger orifices than usual; but not because the orifices have dilated." But whatever may be the mechanism by which the complete closure of the valves is prevented, the result, in the left cavities of the heart, where dilatation usually takes place first, is to raise the blood-pressure in the left auricle and pulmonary artery, and thus to produce the accentuated second pulmonary sound, which Balfour regards as the earliest indication of cardiac dilatation. As murmurs are conducted most readily in the direction of the current producing them, the systolic murmur generated at the mitral orifice will be transmitted to the dilated left auricular appendix, and thence to the chest-wall in the second intercostal space, an inch and a half to the left of the sternum. Whether a murmur at this early period of dilatation is heard also at the apex depends partly on the intensity of the sound generated at the mitral orifice, and partly on the condition of the right ventricle. If this cavity be also dilated, the murmur at the apex may be obscured by the revolution of the heart on its longitudinal axis during the process of dilatation, and the interposition of the right ventricle between the ear and the left apex. Before long, tricuspid regurgitation takes place, and then a systolic murmur is heard in the tricuspid area. Still later, purely hæmic murmurs are developed at the aortic and pulmonary orifices, as a result of the larger waves of watery blood thrown into the arteries by the now irritably acting heart. Murmurs, which are either primarily or secondarily due to impoverishment of the blood, may therefore arise at all the four orifices of the heart. The order of their development may not be always that just described, but, as a rule, the intracardiac murmurs due to dilatation precede the arterial murmurs of more direct hæmic origin. It will be seen, therefore, that, according to Balfour's theory of functional cardiac murmurs, the systolic murmur under consideration in the pulmonary, or rather auricular area, as he prefers to term it, is generated at the mitral orifice, and not in the pulmonary artery as has been commonly supposed; but it is equally apparent that his theory rests upon the assumed correctness of Naumyn's observation as to the part played by the left auricular appendix in the production of the murmur. This main position has recently been vigorously assaulted by Dr. Russell,[3] of Edinburgh. He maintains that there is no clear evidence that the left auricular appendix ever approaches near to—much less touches—the anterior chest-wall. Anatomical facts, he insists, are opposed to such an hypothesis, and the difficulties are increased by

[1] Ueber den Grund, weshalb hin und wieder das systolische Geräusch bei der mitralinsufficienz am lautesten in der Gegend der Pulmonalklappe zu vernehmen ist. Berliner klin. Wochenschr., April 27, 1868.

[2] Clinical Lectures on Diseases of the Heart and Aorta, 1876. Also, On the Position and Mechanism of the Hæmic Murmur. Lancet, September 15, 1877.

[1] Handbuch der spec. Pathol. und Therapie, herausg. von R. Virchow, Bd. iii. s, s. 86. 1867.

[2] British Medical Journal, October 28, 1882.

[3] The Murmurs of Debility in the Pulmonary and Tricuspid Areas. Edinburgh Medical Journal, August, 1882.

the cardiac dilatation which occurs in anæmia. "The origin or root of the appendix is overlapped in part by the pulmonary artery, so to reach the parietes the appendix has to traverse a course equal to the diameter of that vessel. Any increase in the diameter of the artery from increase of its contents will thus place the appendix deeper in the chest; and the distance it has to travel toward its assumed destination is further increased by dilatation of the auricle carrying its root upward. During dilatation of the appendix its movement is mainly a downward one, following the base of the ventricle as it contracts during systole. Doubtless there must be also, as Sibson[1] points out, a certain amount of forward movement, but this can only be inconsiderable." "It is further recognized that, in debility, owing to dilatation of the right ventricle, the left is displaced outward and backward; or a change occurs, which may be regarded as a rotatory movement of the heart round its longitudinal axis, and this must be conceded as having a displacing effect on the auricle analogous to what it has on the ventricle of the same side." Furthermore, there is good reason to suppose that in dilatation of the appendix the enlargement takes place more transversely than longitudinally.

In a later article[2] Dr. Russell says: "The fact of cardiac dilatation is accepted by the advocates of this [Balfour's] theory; we have, therefore, only to learn from post-mortem observations, made with the heart in situ, the changes which occur in the relations of the various parts of the heart to the thoracic wall in this condition. It will, I submit, be found that in less degrees of dilatation the conus arteriosus occupies the second left space, that the same space is occupied by the pulmonary artery, and that the left limit of the vessel is from one to one and a half inch from the top of the sternum. In greater degrees of dilatation the conus arteriosus occupies the inner part of the second space for about two inches, and the origin of the pulmonary artery is under the second rib. In both degrees of dilatation the left appendix is invisible from the front, and is deeply buried behind the root of the pulmonary artery and adjoining ventricle." In proof of these statements Dr. Russell records his post-mortem examinations in three cases of progressive pernicous anæmia, two of general paralysis, and one of "surgical kidneys," in all of which, notwithstanding the presence of various degrees of dilatation, the left appendix was either invisible or could be seen only on profile view when the left wall of the pericardium had been drawn outward. Upon these points Dr. Byrom Bramwell[3] says: "Sibson has shown that, 'in the large majority of cases' which he examined, 'the greater part (in 25 of 45 cases) or the whole (in 14 of 45) of the artery bore to the left of the sternum, and presented itself behind the upper costal cartilages and their spaces, from the first cartilage to the third space,' and further, that the average breadth of the vessel in Pirigoff's five front views of the healthy heart was an inch and a quarter.[4] I see nothing improbable, therefore, in a pulmonary murmur having in many cases its point of maximum intensity considerably to the left of the sternum." In confirmation of Dr. Russell's statement that the appendix of the left auricle is usually invisible from the front when the right cavities of the heart are dilated, as Balfour admits is the case in chlorosis, Dr. Bramwell adds: "I have had several opportunities of verifying this statement during the past session, two of the cases being typical examples of pernicious anæmia. In none of these cases was the appendix much dilated; indeed, in one of the cases of pernicious anæmia it was considerably smaller than usual."

In his reply to Dr. Russell Dr. Balfour claims[5] "that the position of the auricle post mortem is no proof of its state during life, and where there is no mitral stenosis an auricular appendix beating in the second interspace during life may very well empty itself and contract out of sight in the act of dying." But, as Dr. Bramwell pertinently observes, this objection cuts both ways. If the position of the left appendix after death is no indication of its position during life, Naumyn's observations may be as erroneous as Russell's.

Another objection to Balfour's theory urged by Dr. Bramwell, viz., that the murmur in the pulmonary area is unaccompanied, as is usually the case with mitral regurgitant murmurs, by a murmur heard at the angle of the left scalpula, seems to us inconclusive. This objection appeals to the dictum laid down in most of our text-books, that functional are distinguished from organic mitral regurgitant murmurs by the fact that the latter are transmitted to the axilla and angle of the left scapula, while the former are heard only in the apical region without such transmission of the sound. Of late years there has, however, been a growing skepticism as to the correctness of this test. Thus, Hayden,[1] one of our latest authorities, says: "I have repeatedly found indubitable mitral regurgitant murmurs of organic origin totally inaudible at the left scapula, and unaccompanied by intensified second (pulmonary) sound. Indeed, such is the rule in the case of soft murmurs of recent origin, and occurring in a feeble heart before appreciable derangement of the pulmonary circulation has supervened." Whether a systolic murmur generated at the mitral orifice will become audible at the back of the chest depends naturally upon the intensity of the sound, and therefore also upon the degree of patency of the mitral orifice. Should the regurgitation be slight, as is usually the case in anæmia, the murmur will be correspondingly feeble, and may therefore be heard only where it is conducted to the chest-wall most directly. If we grant the essential condition, that in certain anæmic affections the left auricular appendix does come in contact with the chest-wall, I see no reason why a feeble systolic murmur produced at the mitral orifice may not be heard in the second interspace without being audible elsewhere. This objection, like most of the others urged against Balfour's theory, is valid only on the assumption of the incorrectness of his fundamental proposition as to the position of the appendix.

Balfour lays much stress upon the accentuation of the second pulmonary sound in these cases as an evidence of the existence of mitral regurgitation. Bramwell objects that the accentuation is often more apparent than real; the aortic sound being diminished without any positive increase in the pulmonary sound. He does, however, concede that usually the accentuation is not merely relative but positive, as has been found by most observers; but we are not restricted, he insists, to mitral regurgitation as the only explanation of the increased pressure in the pulmonary artery. The conditions of blood-pressure in the pulmonary artery are as yet too imperfectly known to justify dogmatism on this subject. Dr. Russell[2] suggests that the sign in question may possibly be due to "incomplete emptying of the left ventricle during its weakened systole, and consequent imperfect relief to the full auricle," without any regurgitation through the mitral orifice. Independently, therefore, of corroborative evidence, an abnormal accentuation of the second pulmonary sound cannot be regarded as a positive indication of mitral reflux.

The proof of Balfour's theory of functional cardiac murmurs rests, as has been shown, almost entirely upon the correctness of Naumyn's observation as to the position of the left auricular appendix in relation to the murmur in the second interspace. Naumyn plunged needles over the site of the murmur, and found that they entered the appendix, but how far beneath the

[1] Reynolds' System of Medicine, vol. iv., p. 67.
[2] British Medical Journal, June 2, 1883.
[3] A Lecture on the Functional Cardiac Murmurs of Anæmia. British Medical Journal, June 23, 1883.
[4] Russell's System of Medicine, vol. iv., p. 35.
[5] Ibid., p. 125.
[6] Edinburgh Medical Journal, September, 1882, p. 197.

[1] Diseases of the Heart and Aorta, 1875.
[2] British Medical Journal, June 2, 1882.

chest-wall the appendix lay, or what were its post-mortem appearances as to dilatation or actual size, we are not informed. Even with these serious defects Naumyn's observation was eagerly accepted, without confirmation by more scientific investigation, and upon this insecure foundation Balfour erected a most attractive theory for the interpretation of this class of murmurs —attractive because it appeared to bring order out of the confusion which was admitted to exist upon the subject. As it is, the Scotch verdict of "not proven" is all that can be claimed even by his most ardent supporters.

By way of exclusion, therefore, we are compelled to seek the origin of the murmur in question in the pulmonary artery. The chief difficulty in the acceptance of this interpretation, viz., the situation of the maximum intensity of the murmur, so far to the left of the sternum, has been removed in great measure by the observations of Russell and Bramwell, that in cardiac dilatation the pulmonary artery may ascend and be transposed laterally so as to occupy the region which is the site of the murmur. Balfour[1] objects to the pulmonary theory on the ground that "there are in chlorosis no causes of murmur operative at the pulmonary orifice which are not at least as active at the aortic opening, so that a pulmonary murmur would certainly be accompanied by an aortic murmur also, and the latter would, of course, be propagated along the course of the aorta, and more or less distinctly into the carotids." In this objection he entirely overlooks the fact that the existence of an accentuated second pulmonary sound, upon which he insists so strongly, presupposes conditions in the pulmonary artery which do not exist in the aorta. A certain amount of dilatation may be supposed to accompany the increased pressure in the pulmonary artery, and this change in the diameter of the vessel may be all that is required, in connection with the rapid flow of anæmic blood, to produce a murmur. In the aorta, where there are no conditions to change the lumen of the vessel, a murmur may not make its appearance until later, when the necessary rapidity of the current is secured by the more irritable and forcible action of the left ventricle.

Not satisfied with his destructive criticism of Balfour's theory, Dr. Russell advanced an ingenious hypothesis of his own, to the effect that the murmur in question is due to compression of the pulmonary artery by the dilated left auricular appendix. This theory concedes a dilatation of the left auricle and appendix; but Dr. Russell seems to be in doubt whether such dilatation is due "to the incomplete emptying of the left ventricle during its weakened systole and consequent imperfect relief to the left ventricle, or is from the first due to a certain amount of regurgitation, or to both causes combined." If regurgitation be admitted, conditions for the production of murmur at the mitral orifice are present at this orifice, and Balfour's theory, therefore, must be regarded as not entirely unsupported, even although the difficulties as to the transmission of the murmur to the second interspace be not fully explained. If, on the other hand, the dilatation of the auricle and appendix be due merely to incomplete emptying of the left ventricle, it is not easy to see how, in the early stage of chlorosis—the case we are considering—the tension in the left appendix can be raised so as to exceed that in the pulmonary artery. Balfour, in reply to Russell on this point, says: "It is absolutely impossible that the left auricle can ever so compress the pulmonary artery." Our limits will not permit us to consider the mechanical problems invoved in this proposition, and discussed at some length by Drs. Balfour and Russell, in their somewhat acrimonious controversy. It is, moreover, unnecessary to do so, because if we exclude mitral regurgitation, there are no demonstrable causes—at least in the earlier stages of anæmia—for producing the requisite degree of tension in the left appendix. But even if we admit a certain degree of mitral reflux as aiding the process of dilatation in the appendix, Russell's argument from the greater power of the left ventricle as compared with the right, is inconclusive, as Bramwell points out, because the reflux current at the mitral orifice is opposed by the valves and the contractile force of the left auricle, whereas the only obstacle to the power of the right ventricle is the blood-pressure in the pulmonary circulation. "The right ventricle, though much weaker, is acting (more especially when the tricuspid is sound) at an immense advantage, and undoubtedly propels a much larger quantity of blood into the pulmonary artery than the left ventricle propels (in any ordinary case of mitral regurgitation) into the left auricle"[1]

It will thus be seen that the theories of Balfour and Russell present serious difficulties. A dilated left auricular appendix plays an important part in both. In the one the near approach to, or contact of the appendix with the chest-wall is unproven; in the other, the compression of the pulmonary artery by the left auricular appendix implies a degree of tension in the latter which can hardly be supposed to be present even with extreme dilatation of the auricle, much less with the slight dilatation present in the early stage of chlorosis. In view of all the evidence before us, the conclusion seems to be justified that the murmur in question, in all probability originates in the pulmonary artery, but there is less certainty as to the causes which determine the occurrence of the sound in the pulmonary artery rather than in the aorta, and give it a localization so far to the left of the sternum. With the conditions favoring a rapid blood-current in anæmia, possibly a slight diametric change in the pulmonary artery may be all that is required to produce a murmur. And, finally, the situation of the greatest intensity of the murmur—from one to two inches to the left of the sternum—may be accounted for by the upward and lateral transposition of the pulmonary artery by the cardiac dilatation.

[1] Edinburgh Medical Journal, October, 1882.

ACUTE LOBAR PNEUMONIA WITH THE FORMATION OF ORGANIZED INFLAMMATORY PRODUCTS WITHIN THE AIR-PASSAGES AND VESICLES.

By FRANCIS DELAFIELD, M.D.,

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I have recently seen, both during life and after death, two cases of acute lobar pneumonia of a character entirely new to me.

Case I.—Male, aged thirty-nine, laborer, admitted to the Roosevelt Hospital on December 29, 1883.

December 24th.—The man came to the out-patient department of the hospital, saying that he had been vomiting for several days.

December 25th.—He was attacked with pain in the side, chill, dyspnœa, and fever; and crepitant râles were heard over the right middle lobe.

December 29th.—The man is somewhat intoxicated. His face is flushed, tongue coated and dry, pupils small, mild delirium. Consolidation of the middle lobe of the right lung. Urine, sp. gr. 1.010, no albumen.

December 30th.—The mild delirium alternating with stupor continues. The lower lobe of the right lung has become consolidated.

January 1, 1884.—The dulness and bronchial voice and breathing continue over the middle and lower lobes of the right lung, the same physical signs, with subcrepitant râles, can now be heard over the lower lobe of the left lung.

January 2d.—The patient is now in the typhoid state: brown, dry tongue, active delirium, involuntary discharges of urine and fæces.

January 4th.—The left parotid gland has become swollen and painful. The patient remained in the same typhoid state and died on January 8th. The course of

[1] British Medical Journal, June 30, 1883.

the temperature, the pulse, and the respiration can be seen in Fig. 1.

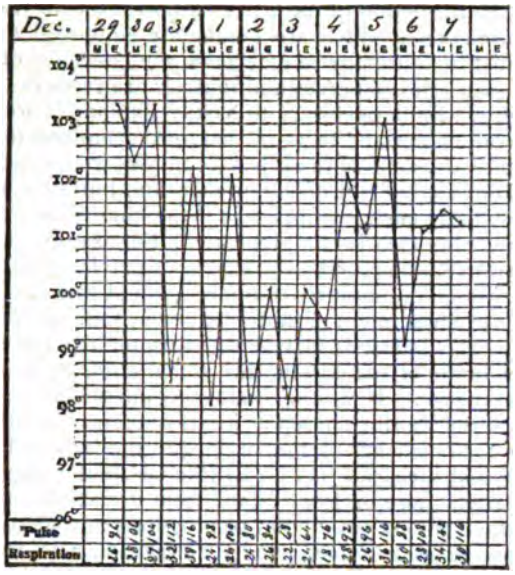

FIG. 1.

The entire duration of the disease was fourteen days and a few hours.

The physical signs of consolidation of the lungs were well marked. The cough was infrequent and the expectoration scanty. The temperature was not high, the breathing was but moderately accelerated, and the pulse was not rapid until the last day of the disease. The most marked symptoms were the delirium, stupor, prostration, and typhoid condition.

At the autopsy the only morbid changes were in the pia mater, the spleen, and the lung.

The pia mater was infiltrated with serum and with new connective-tissue cells.

The spleen was large and soft. The lower lobe of the left lung was small, dense, partially aërated, of red color, mottled with small gray patches. The bronchi were somewhat congested. The pulmonary pleura was coated with a little fibrin. The middle and lower lobes of the right lung were consolidated, but diminished in size. The pulmonary pleura was coated with a little fibrin. The pulmonary artery and vein were injected with blue gelatin. The consolidation of the lungs was effected, as in ordinary lobar pneumonia, by plugs of inflammatory material within the air-passages and vesicles. In ordinary lobar pneumonia these plugs are so large as to distend the air-vesicles, and in this way the hepatized portion of lung is increased in size. In this case, however, the plugs were small, not large enough to fill the vesicles. This small size of the plugs enabled one, in sections, to see plugs within air-passages sending out processes into the communicating air-vesicles. Some of the plugs were composed of ordinary reticulated fibrin and pus; in others the fibrin ran more in straight lines and was stiffer, so that the plugs were of irregularly triangular shape, only touching the walls of the vesicles at their angles. Many of the plugs were composed of a homogeneous basement substance, in which were imbedded fusiform, polygonal, round, and oval cells. In some of these plugs are large blood-vessels with thin walls, into which the blue injection has run. This new tissue does not look like an outgrowth from the walls of the vesicles, but like tissue formed within their cavities, and only touching their walls at some points. Some of the plugs are composed partly of new tissue, partly of fibrin and pus. The walls of the air-vesicles show a complete blue injection of the capillaries; and some of them are thickened and infiltrated with round cells.

CASE II.—Female, forty-five years of age, admitted to Bellevue Hospital November 27, 1883.

On November 17th she was exposed to the weather for a long time. Soon after she came home she was attacked with a chill, fever, headache, and prostration. The next day she had a cough with brownish sputa, dyspnœa, and was obliged to go to bed, where she has since remained.

November 27th.—The patient looks seriously ill. Her face is flushed, she is dull and apathetic, tongue coated and dry, pain over right lung, dyspnœa, cough, and abundant muco-purulent sputa. Over the upper lobe of the right lung there is dulness and very distinct bronchial voice and breathing. The patient soon passed into the typhoid state and died on December 5th. The temperature and pulse are shown in Fig. 2.

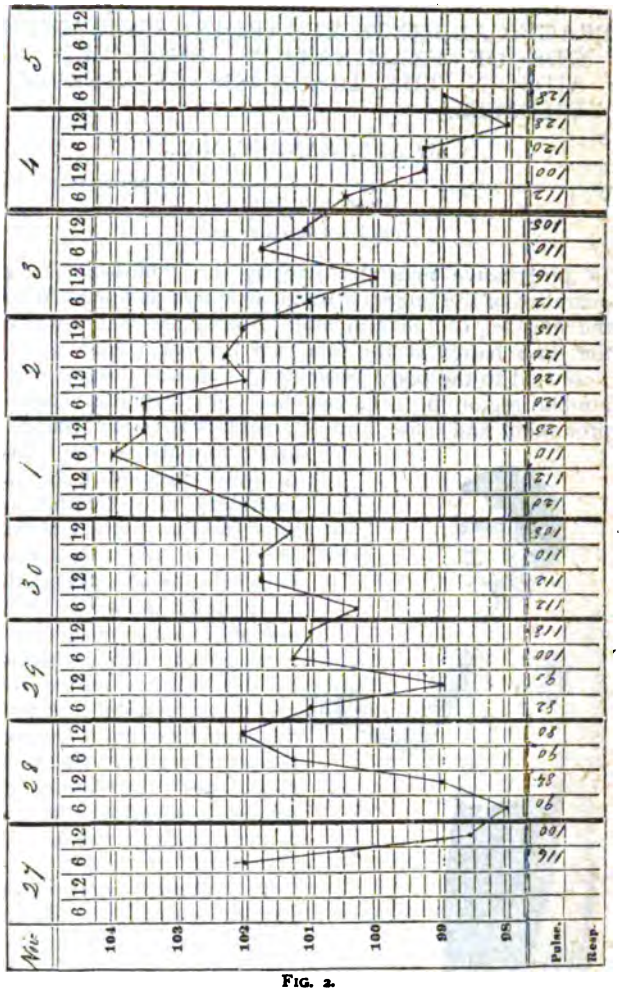

FIG. 2.

At the autopsy no lesions were found, except in the upper lobe of the right lung. This lobe was consolidated, but not enlarged. There was a little fibrin on the pulmonary pleura. The cut surface of the lung had the gross appearance of a smooth red hepatization mottled with numerous minute white dots, which corresponded to plugs in the air-vesicles.

Minute examination shows a diffuse interstitial growth of connective tissue, most marked around the vessels and in the septa, but also involving the walls of the air-vesicles. These walls are symmetrically thickened and infiltrated with round cells.

Within the air-passages and vesicles are plugs composed of a homogeneous basement substance, in which are embedded round, oval, fusiform, and polygonal cells. There is also a well-marked growth of epithelial cells adherent to the walls of the vesicles and detached from them. In a few vesicles coagulated fibrin and pus-cells were found. The plugs only partly fill the vesicles and touch their walls at but few points; they can be seen to project from the air-passages into the communicative vesicles.

Both these cases were characterized by the excessive development of prostration and typhoid symptoms. Ex-

cept for the physical signs, they looked like patients with a continued fever.

The anatomical changes which existed in these lungs I have never seen described. In broncho-pneumonia and in phthisis the air-vesicles may be filled with organized tissue instead of with fibrin and pus; but a diffuse lobar pneumonia, running an acute course, with the production of organized tissue in the air-spaces, is something very unusual.

Drawings of these lungs will be published in the next number of my "Studies in Pathological Anatomy."

PRACTICAL HINTS REGARDING THE METHODS OF EXAMINATION EMPLOYED AS AIDS IN THE DIAGNOSIS OF NERVOUS DISEASES.[1]

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(Continued from page 315.)

In progressive muscular atrophy the "bird-claw" appearance of the fingers attracts attention at once. When the muscles of the arm and forearm are badly wasted the limb hangs at the side in a helpless way, "as if it were tied to the body by strings." If the muscles of the lumbar region be attacked the belly becomes slightly prominent and tense, and the back is strongly arched in order to balance the trunk. A line dropped from the shoulders falls behind the hips as the patient stands erect. If the abdominal muscles are atrophied the belly falls forward to a marked extent, and the back is arched in such a manner by the healthy lumbar muscles that a vertical line from the shoulders passes through the sacral region. The muscles of the lower limbs are seldom so severely wasted as to prevent the patient walking.

FIG. 16.—Progressive Muscular Atrophy of entire Upper Extremity.

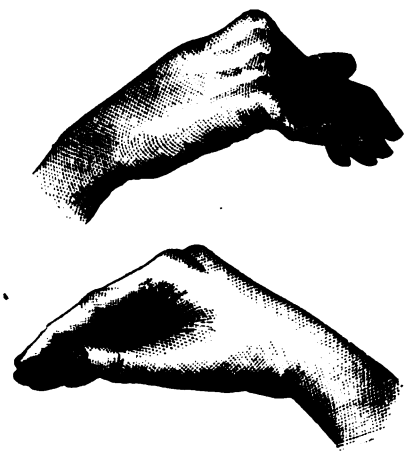
In hysterical paralysis the patient (usually a young woman) is often confined to the bed. Todd has described the facial appearance of this class of patients as characterized by "a remarkable depth and prominent fulness with more or less thickening of the upper lip, and by a peculiar drooping of the upper eyelid." Sometimes the muscles of the limbs are flaccid, while in others the legs are stiffly extended and the feet are turned inward. The nutrition of the muscles is generally good, and marked atrophy is seldom present.

In cerebro-spinal sclerosis the face first attracts attention by the stupid and vacant expression, the half-open mouth, an oscillation of the eyeballs (nystagmus) in some instances, and a contracted state of the pupils in many cases. The speech is liable to be of a "drawling" character, and the tone of the voice monotonous. The head is often turned slightly to one side during attempts at walking, or perhaps is drawn a little backward—a point which is explained by Bramwell as an effort on the part of the patient to prevent unsteadiness of the head by an artificial stiffness of the neck. The gait has already been described.

[1] This article comprises, in substance, the subject-matter of a course of lectures delivered by the author before a private class of post-graduate students.

SYMPTOMS OF NERVOUS DISEASES REVEALED BY THE EMPLOYMENT OF VARIOUS TESTS.

The third section of my article is now reached. Before the various tests which are commonly employed by the specialist in neurology to determine the existence of diseased states of the nerves and muscles are separately discussed, it will be necessary to hastily summarize some of the more important facts in nervous symptomatology. Not only are some of these tests complex in themselves, and therefore difficult of comprehension, but they would be absolutely useless in practice if the clinical bearing of each were not clearly comprehended. For example, a physician who has acquired a smattering of nervous symptomatology is called upon to examine a patient who gives evidences of impairment of motor power in some part of his body. This paralysis may be due to some trouble either in the brain of his patient, his spinal cord, or in some special nerve. If in the brain, the physician is called upon to decide (for himself at least) whether it is situated in (1) the coverings of the brain, (2) the external gray matter that invests it like a cap (the cerebral cortex), or (3) in parts more or less distant from its exterior. It is important, from a standpoint of prognosis and treatment, that he comes to some definite conclusion also regarding the character of the trouble. If the disease be confined to the spinal cord of the patient, it becomes necessary to discriminate again between affections that follow separate bundles of nerve-fibres (systematic lesions of the cord) and those that spread transversely from column to column (focal lesions of the cord); and to decide also as to the height of the lesion, its pathological character, and the special regions that are affected by it. Finally, if the paralysis be due to some spinal nerve, the possibility either of brain or spinal disease must be excluded, and the cause must be sought for along the course of the nerve whose function is impaired.



FIGS. 17, 18.—Deformities of the Hand due to Paralysis.

Before I discuss the clinical tests of nervous diseases in detail, I direct attention, therefore, to some extracts from the chapters on the diseases of the brain and spinal cord that are embodied in the third edition of my work on "Surgical Diagnosis."

MOTOR PARALYSIS.—Anything which tends to impair the generating power of the nerve-centres or the conducting power of nerve-fibres may produce paralysis of motion or sensation.

Motor paralysis can result, therefore, from any cause which interferes with the motor convolutions of the brain, or the nerve-fibres which start from them and are continued as the so-called "motor tract." The latter pass through the following parts: (1) The white substance of the cerebral hemispheres; (2) the corpora striata; (3) the crura cerebri; (4) the pons Varolii; (5) the medulla oblongata; and (6) down the motor columns of the spinal cord.

The disturbing lesions may be therefore classified as:

(1) Those of the gray matter of the convolutions of the brain (cortical lesions); (2) those of the central mass of the cerebral hemispheres, including lesions of the "internal capsule;" (3) those of the corpora striata; (4) those of the crura cerebri; (5) those of the pons Varolii; (6) those of the medulla oblongata; (7) those of the spinal cord.

The various tests which are employed to determine the existence and extent of a loss of muscular power will be given later.

Cortical paralysis, or that form dependent upon some lesion of the gray matter of the cerebral convolutions (the cerebral cortex), may occur in connection with abscesses, blood-clots, spots of softening, tumors, depressed bone, meningeal thickenings, embolism, thrombosis, etc.

The researches of Ferrier have lately taught us the situation of special motor centres scattered over the convolutions of the so-called "motor area' of the cerebrum.

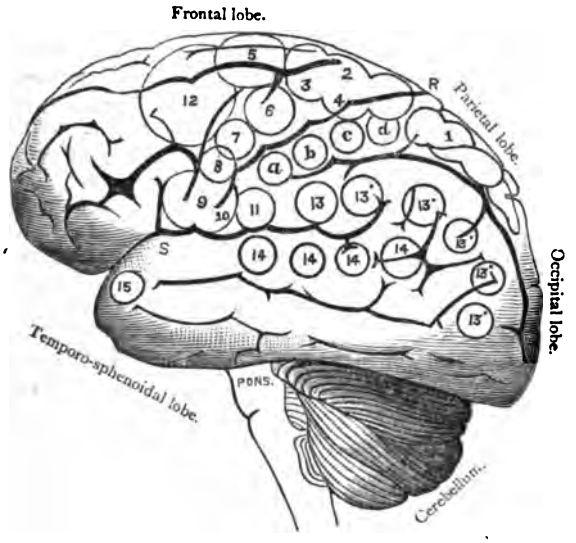


FIG. 19.—Side View of the Brain of Man and the Areas of the Cerebral Convolutions (modified from Ferrier). R, Fissure of Rolando; S, fissure of Sylvius, dividing into its two branches; 1 (on the postero-parietal [superior parietal] lobule), advance of the opposite hind-limb as in walking; 2, 3, 4 (around the upper extremity of the fissure of Rolando), complex movements of the opposite leg and arm, and of the trunk, as in swimming; *a*, *b*, *c*, *d* (on the ascending parietal [posterior central] convolution), individual and combined movements of the fingers and wrist of the opposite hand—prehensile movements; 5 (at the posterior extremity of the superior frontal convolution), extension forward of the opposite arm and hand; 6 (on the upper part of the antero-parietal or ascending frontal [anterior central] convolution), supination and flexion of the opposite forearm; 7 (on the median portion of the same convolution), retraction and elevation of the opposite angle of the mouth by means of the zygomatic muscles; 8 (lower down on the same convolution), elevation of the ala nasi and upper lip with depression of the lower lip on the opposite side; 9, 10 (at the inferior extremity of the same convolution, Broca's convolution), opening of the mouth, with 9, protrusion, and 10, retraction of the tongue—region of aphasia, bilateral action; 11 (between 10 and the inferior extremity of the ascending parietal convolution), retraction of the opposite angle of the mouth, the head turned slightly to one side; 12 (on the posterior portions of the superior and middle frontal convolutions), the eyes open widely, the pupils dilate, and the head and eyes turn toward the opposite side; 13, 13' (on the supra-marginal lobule and angular gyrus), the eyes move toward the opposite side with an upward 13, or downward 13', deviation—the pupils generally contracted (centre of vision); 14 (of the infra-marginal, or superior [first] temporo-sphenoidal convolution), pricking of the opposite ear, the head and eyes turn to the opposite side, and the pupils dilate largely (centre of hearing). Ferrier, moreover, places the centres of taste and smell (15) at the extremity of the temporo-sphenoidal lobe, and that of touch in the gyrus uncinatus and hippocampus major.

From this standpoint we are often enabled to judge of the seat of the lesion by the aid of the groups of muscles which exhibit the paralytic state (monoplegia). Hughlings-Jackson and Brown-Séquard have added to our knowledge of the relative effects of destructive and irritative lesions of the cerebral cortex.

Irritative lesions are usually ushered in by convulsive attacks, which leave the subject paralyzed in some special group of muscles (monoplegia); or, if hemiplegia ensues, some parts of the body are more affected than others. The paralysis is usually transient and returns again after subsequent convulsive attacks. These irritative lesions are generally of syphilitic origin.

Destructive lesions of the cerebral cortex are characterized by paralysis of special groups of muscles (monoplegia), as was the case with the irritative lesions. This is in marked contrast to the "hemiplegia" which follows lesions of the central portions of the nervous system. If the lesion be very extensive coma may be produced, but consciousness is not usually lost unless the attack be accompanied by convulsions. Pain of a local character within the head is often complained of, and percussion over the seat of the lesion frequently elicits it, if it should be absent. The sensibility of the paralyzed parts is not impaired unless more or less sensory paralysis exists as a complication. The paralyzed muscles exhibit the normal electro-contractility. As is the case with all cerebral lesions, the paralysis is developed on the side opposite to the exciting cause (except in very rare instances). The various types of monoplegia and the surgical guides for trephining over special motor centres have been discussed in the author's work upon the anatomy of the nervous system. Space will not allow of their repetition. In cortical lesions of the motor area the muscles frequently exhibit a state of post-paralytic rigidity in the early stages of the disease.

Hemiplegia.—This condition is characterized by a paralysis of motion in one lateral half of the body. It is often associated with more or less anæsthesia, but it may exist independently of it.

Hemiplegia may be produced by any lesion which interferes with the free action of the "motor tract" of fibres during their passage from the motor convolutions of the cerebrum to the columns of the spinal cord, and lesions of the spinal cord itself (if sufficiently high up and restricted to that lateral half of the cord on the side which corresponds to the paralysis) may also induce it.

If the lesion be within the cavity of the cranium the hemiplegia will be on the opposite side of the body; if it be spinal the hemiplegia will be upon the same side.

Hemiplegia from intracranial lesions may be the result of embolism, thrombosis, apoplexy, softening, abscess, tumors, compression of the brain from traumatic causes, destruction of limited portions by injury, general pressure from inflammatory exudations, etc.

Consciousness is generally lost when cerebral hemiplegia is developed. Convulsive attacks are not usually present at the onset of the paralysis. The paralysis is more profound, as a rule, than that of cortical lesions, and of longer duration. The special senses are not infrequently involved to a greater or less degree. Other cranial nerves, which are not associated with the special senses, may also give evidence of being implicated by the lesion.

By these guides the seat and extent of the lesion may often be determined with positiveness. The coexistence of impairment of sensation with motor paralysis is a valuable diagnostic sign that the exciting lesion is within the substance of the brain and not upon its surface. The exceptions to this rule are extremely rare.

The localization of non-cortical lesions is more difficult and less certain than those which are confined to the cortex. A careful study of all the symptoms presented (when combined with accurate anatomical knowledge) will often, however, lead to most positive deductions. It should be remembered that accuracy of diagnosis often leads to success in treatment of disease, and in no case is it better exemplified than in the nerve-centres.

Crossed paralysis.—A condition in which the face or some organ of special sense gives evidence of an impairment of a cranial nerve, while the body is simultaneously rendered hemiplegic on the opposite side, is termed "crossed paralysis"—the "paralysie alterne" of the French authors. We owe much of our knowledge of this subject to Professor Romberg, of Berlin, who has written extensively upon it.

The more common forms of crossed paralysis are named from the cranial nerve which exhibits an impairment of its functions. They are as follows: First cranial nerve (olfactory) and body type; third cranial nerve (motor oculi) and body type; fifth cranial nerve (trigeminus) and body type; seventh cranial nerve (facial and body type.

It may be well to remark in this connection that "crossed paralysis" is of special clinical importance, because it often imparts the most positive information to the surgeon in regard to the seat of the lesion which has produced it.

Complete paralysis.—When a lesion is situated at the base of the brain, and is sufficiently large to involve the motor tract of both hemispheres, the body may be completely paralyzed below the head.

Various cranial nerves—chiefly the third, fifth, sixth, and seventh—are liable to then exhibit the effects of simultaneous pressure upon them; hence the general paralysis of the body is apt to be associated with paralytic symptoms confined to the face. Bilateral spinal lesions, when situated high up in the cervical region, may also cause a form of complete paralysis of the body—the so-called "cervical paraplegia."

Sensory Paralysis.—The sensation of special parts of the body may be so modified by lesions of the nerve-

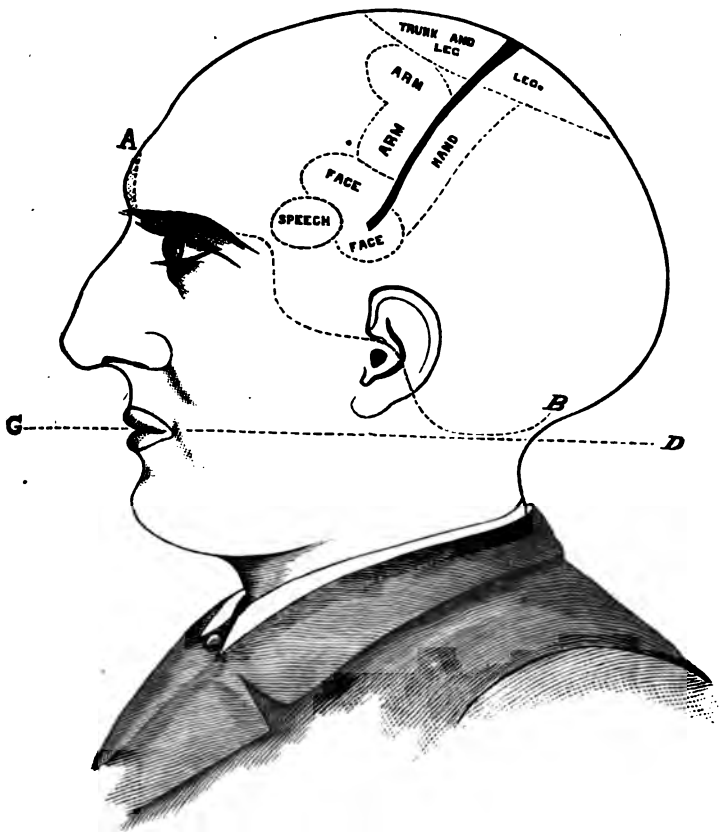


Fig. 20—A diagram designed by the author to illustrate the regions of the cortex of the brain associated with special parts of the body, as a guide to the seat of destructive processes in connection with motor paralysis. *A B*, dotted line to indicate the relative depth of the brain in the anterior, middle, and posterior fossæ of the skull: *C D*, a line running from the cusps of the teeth of the upper jaw to the tip of the mastoid process of the temporal bone. This is useful as a base-line from which to erect vertical lines, by careful measurement during life, which shall intersect the different centres of the brain. Trephining for the relief of *monoplegia* and *aphasia* can thus be performed with scientific accuracy.

centres as to constitute a type of paralysis. The various forms of this condition may exist independently of motor paralysis, or may coexist with it. The tests commonly employed to detect the limits and degree of sensory paralysis will be given later.

Sensory paralysis may be classified as follows: (1) Paralysis of those cranial nerves which are not endowed with motor attributes; (2) paralysis of sensory nerves below the head. The latter subdivision comprises hemianæsthesia, general anæsthesia, and local anæsthesia.

Among the various clinical evidences of lesions which affect the sensory nerve-tracts of the brain and spinal cord, the following may be mentioned: *hyperæsthesia*, or an excitation of sensibility; *numbness; formication*, or a sensation like the creeping of ants; *abolition of sensation*, or complete anæsthesia—this condition may be general or local; *anosmia* and *hemianopsia; delayed sensation*, as is evidenced by a perceptible interval of time between the contact of a foreign body with the skin and its conscious appreciation by the patient when the eyes are closed. The pricking of the skin with a needle is a test commonly employed to determine this condition. It is clinically related to lesions of the spinal cord only.

Some of these conditions will be now considered in their more important aspects. Others will not be separately described, as they would require too much space, provided such a *résumé* was attempted.

Hemianæsthesia.—This condition is characterized by a loss only of sensation (not of motion) in one lateral half of the body. It is often associated with more or less marked hemiplegia.

The tests employed to determine the existence of this state and its degrees of intensity are the same as those employed in any form of sensory paralysis. They will be described later.

Hemianæsthesia indicates that the exciting lesion has impaired the conducting power of the fibres associated with the so-called "sensory area" of the cerebral convolutions. There is strong clinical evidence to sustain the opinion that these fibres run in the posterior third of the "internal capsule." Lesions of this latter region are not infrequently the cause also of more or less impairment of sight, smell, hearing, and taste, in addition to their effects upon general sensation. Charcot, Ferrier, Rendu, Raymond, and others who have studied the effects of lesions of the posterior third of the internal capsule of the cerebrum concur in this statement.

Hemianæsthesia is frequently accompanied by the development of choreiform movements after the paralysis has developed. These may assume the type of athetosis, true ataxia, or tremor. The same may also be said of that type of hemiplegia which occurs as the result of lesions of the internal capsule of the cerebrum.

Finally, a condition characterized by an abnormality of the eyes, termed "conjugate deviation," may be associated with lesions of the white centre of the cerebral hemispheres. I quote an extract, from my late paper upon the "Diagnosis of Lesions of the Internal Capsule," regarding this symptom:

"When, in connection with rapid softening or an extravasation of blood into the substance of the cerebrum above the level of the basal ganglia, this peculiar symptom is developed (either simultaneously with or following paralysis and coma), the patient's head and eyes will be observed to be turned constantly away from the paralyzed side and toward the side upon which the seat of the lesion is. Various attempts have been made by late authors to throw discredit upon the clinical significance of this symptom as particularly indicative of a lesion of the cerebral hemisphere, but I am convinced that it is a valuable differential sign. Ferrier has demonstrated that a cortical centre, which he locates in the first and second frontal gyri, near to their bases, presides over conjugate movements of the head and eyes and causes dilatation of the pupils. He attributes this symptom, when occurring in connection with hemiplegia of cortical or ganglionic origin, to the unantagonized action of the corresponding centre of the uninjured hemisphere, thus explaining the fact that the distortion is toward the side of the lesion. Clinical evidence of the correctness of this view has been brought forward by Hughlings Jackson, Priestly Smith, Chouppe Landouzy, Carroll, and others; and in some cases reported the situation of the lesion has been verified by pathological observation. The opportunity to record pathological observations upon cases where this symptom was well marked during life is, unfortunately for science, a comparatively rare

one. It is impossible, therefore, to speak positively concerning the diagnostic value of this symptom, although the weight of clinical evidence seems to be strongly in its favor."

Finally, it must be said that in cerebral hemianæsthesia there is more or less insensibility to touch, pain, and temperature, and also abolition of muscular sensibility with complete retention of electro-motor contractility. The mucous membranes of the eye, nose, and mouth are also frequently rendered anæsthetic.

(To be continued.)

NOTES ON DEFORMITIES AND THEIR TREATMENT.

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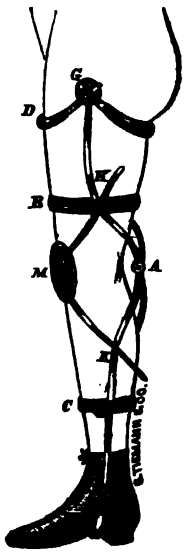
Displacement of the upper extremity of the femur on the dorsum ilii.—There is a class of deformities about which little is written in surgical treatises, and which receive but slight attention from surgeons. I refer to cases of displacement of the upper extremity of the femur on the dorsum of the ilium, either by separation of the neck from the shaft, or of diastasis of the head from the neck. These cases differ materially from dislocations of the femur upon the dorsum which occur in the latter stages of hip-joint disease. They more nearly resemble ununited fractures of the neck of the femur in adults.

The difference between these two deformities is this, viz., in the dislocation the thigh is fixed in the position of adduction and flexion, while in the separation of the head or neck the limb has free motion, with slight, if any flexion, and generally there is eversion of the foot, as in fracture of the neck. The following case illustrates the peculiarities of these deformities, and a method of treatment adopted.

In 1874 a girl, aged eight years, came under my treatment with the following history. When four years old, and while residing in Chicago, she fell upon the right hip. The injury was followed by a severe inflammation of the joint, an abscess formed, and when it was opened the surgeon removed a large globular mass of bone. A careful inquiry into all the facts of a long and tedious sickness, of her mother, who was a very intelligent lady, seemed to establish the conclusion that the accident subsequently effected a separation of the head of the bone from the neck, at the epiphyseal junction, and that the head of the bone was finally removed from the cavity of the abscess. The symptoms were chiefly those of ordinary hip-joint disease, though it ran more rapidly through the several stages. She was believed to be in a very critical condition for a considerable time, but after the bone was removed she rapidly recovered. When she first came under my observation she was very stout and active, but was suffering from a painful limp, due to the shortening of the injured limb.

On examination, the right foot was found slightly everted, and the right leg was diminished in size throughout, though the left was abnormally large, owing to the increased use to which it had long been subjected. On comparing the length of the limbs it was found that, measuring from the anterior superior spinous process of the ilium to the malleolus, the injured limb was found to be shorter by two and one-half inches; but measuring from the upper extremity of the trochanter major on each side there was no difference in the lengths of the limbs. On manipulation of the affected limb the upper extremity of the trochanter was found on the dorsum of the ilium and near its upper edge. On rotation of the limb the trochanter turned upon its axis in the grasp of the fingers without a radius. The motions of flexion, adduction, and abduction were limited about one-fourth. On attempting extension it was found that the limb could be lengthened an inch.

The treatment proposed was extension until the greatest possible degree of lengthening of the limb was obtained, and then the application of a splint which should maintain this extension during the period of growth, or until a new point of articulation or support of the trochanter should be secured. The patient was accordingly placed in bed, and a weight attached to the limb as heavy as she could tolerate. At the end of three weeks it was found that the difference between the two limbs, measuring from the anterior superior spinous processes, was but one inch. To maintain the necessary degree of extension, and enable the patient at the same time to walk about, was the problem to be solved in the construction of the splint. The common hip splint makes but slight extension, and that only intermittingly. In this case continuous extension was required. To meet the indications the following splint was devised and applied. The description is by Mr. Stohlman.



The apparatus has two upright steel bars, which are fastened by screws or rivets under the sole of the shoe. These bars have corresponding joints at the ankles. Instead of continuing upward in a direct line, they pass under the knee-joint and are united by a joint, A, with the two thigh bars, which latter separate and pass upward upon both sides of the limb, the inner bar stopping below the perineum, the outer one extending above the head of the femur to pad G. The padded strap, D, passes under the gluteal muscle and acts as the superior counter-extension. B C are bands to confine the limb to the brace. A knee-cap, M, is fastened on both sides to bars K K. The brace has a strap over the instep and also over the heel of the foot (not shown on the wood-cut). These, with the lacing of the shoe, act as counter-extension below, when the peroneal band, D, is drawn tight and the leg stretched.

The great advantages of this splint consist in its *constant and uninterrupted extension of the leg* when the patient *bends the knee-joint*, in consequence of the joint being under the knee; while, on the contrary, the usual brace, with joints on the side of the knees, causes the limb to lose the extension whenever the leg is bent.

This splint was worn continuously until the patient reached the age of eighteen, being extended from time to time to adapt it to the growth of the limb. During this period the limb remained of the same length as at the first application, a new joint formed, and the ability to walk without the appliance, and with but a moderate limp, is fully and, probably, permanently established.

Success of Vaccination in India.—It might have been supposed that of all the countries in the world India was the one in which the bitterest opposition would have been offered to compulsory vaccination. This, however, does not appear to be the case. According to the latest report of the sanitary condition of the country, the working of the acts, wherever they have been applied, has not been attended with any great difficulty. The people in most cases yield to simple persuasion, and in a few instances where they prove refractory the issue of a summons is almost always effectual. Opposition fostered by caste prejudices is in some places still offered, but as a rule the masses now accept vaccination with readiness, and in some parts it is even sought after and paid for. In Bengal, Madras, and Bombay, the Punjaub, the northwestern and central provinces, Berar, Assam, and British Burmah, the total number of persons operated upon during the year was over 4,400,000. Generally speaking, the treatment appears to have been successful, the ratio ranging as high as 98.39 per cent.

ON THE ALTERATIONS IN THE SIZE OF THE PUPILS IN THE INSANE.

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It is the purpose of this brief paper to add to the statistics already published concerning the frequency of pupillary changes in the insane, those obtained by myself as the result of an examination made in September, 1883, of a number of persons so affected in the Asylum for the Insane at Athens, O.

Albutt, who has studied the eye-symptoms of insanity with a great deal of care, says that sixty per cent. of the cases have contracted, unequal, or sluggish pupils. Nasse, who examined the eyes of 229 patients in the Asylum at Seiburg, found 73, or about thirty-two per cent., with dilated, contracted, unequal, or sluggish pupils. Castiglioni examined 146 cases, and found 110, or over seventy-six per cent., having the same condition. I examined the eyes of 250 insane patients, and found a pupillary affection in 90, or about thirty-six per cent. Of this number 70, or about seventy-seven per cent., had contraction of the pupils, and 20, or about twenty-three per cent., had dilatation of the pupils. Among the cases having contraction of the pupils, the condition was observed to be monocular in 48. Among the cases of dilatation of the pupils, in only 2 was the condition observed to be monocular. One of the cases was that of a patient having dementia with epilepsy, in whom the right pupil was dilated. The second was one of chronic mania, having also dilatation of the right pupil.

Pierd'houy found among 900 insane in the province of Mombello, a difference in the size of the pupils in sixty per cent. of the cases. He also found, among 81 epileptics, a pupillary difference in 42 cases. Castiglioni found among his cases seventy-five per cent. with unequal pupils. Nasse found sixty-four per cent. with unequal pupils. In 250 cases I found only twenty per cent. with pupillary difference. Nasse observed pupillary difference in 99 out of 103 cases of general paralysis of the insane. Siefert found the same condition in 17 out of 23 cases. I found a pupillary difference in 16 out of 39 cases.

Vincent found reflex iridoplegia ("Argyle Robertson's pupils") in 8 of 21 cases of general paralysis of the insane. In 11 cases he noticed the reaction was less marked to light than the accommodation. Boy found absolute iridoplegia in 68 of 76 cases. I found, among 39 cases of general paralysis, 13 cases of reflex iridoplegia.

Among 48 cases of acute mania, I found 24 with contracted pupils. In 13 of the 24 cases the affection was monocular. In 67 cases of chronic mania there was dilatation of the pupils in 5 cases; monocular in 1 case. Among 4 cases of acute melancholia the pupils were both dilated in 1 case. In 20 cases of chronic melancholia, the pupils were dilated in 3 cases on both sides, and contracted in 2 cases, 1 monocular. Pierd'houy observed, among 21 cases of dementia paralytica, the pupils to be elliptical in form and unequal in 12 cases. He found that unilateral myosis was present in most of the cases, but that unilateral mydriasis was oftener present in the more advanced cases. In 84 cases of dementia I found that the pupils were dilated in 3 cases on both sides, and contracted in 25, and in 18 of this number the contraction was either monocular, or was greater on one side than the other.

Pierd'houy found among 30 cases of idiocy examined seventy-five per cent. having dilatation of the pupils. In 17 cases, I found thirty-six per cent. with dilatation of the pupils.

The Fashionable Antiseptic in all the hospitals of this city is the solution of bichloride of mercury, one part to fifteen hundred or two thousand of water.

Progress of Medical Science.

The Changes in the Spinal Cord following Poisoning with Atropia, Morphia, Nitrate of Silver, and Potassium Bromide.—Dr. Tschish has been lately conducting a series of experiments upon dogs, to determine the changes in the cord occasioned by poisoning with the above-named substances. Examinations made after acute poisoning, where death occurred within a few hours or days, gave negative results with all except the nitrate of silver; but in the chronic cases, where life was prolonged for weeks or months, alterations in the cord were found in every instance. These changes were located chiefly in the ganglia, whose protoplasm was swollen, clouded, and seemed to have undergone granulo-fatty degeneration. The nuclei were degenerated, especially in chronic poisoning with morphia and atropia. In old cases their processes had also undergone granulo-fatty degeneration, and in some instances had entirely disappeared. In the gray substance there was granular degeneration, and in some places complete destruction of the nerve fibres. The general appearance presented after poisoning by these substances was that of a central myelitis.—*St. Petersburger Medicinische Wochenschrift*, January 19, 1884.

The Diagnosis of Diseases of the Stomach.—Although great advances have been made of late in the study of symptomatology, there yet remain many difficulties in the way of a correct diagnosis of the diseases of the internal organs. This is especially true in the case of gastric disorders. In a recent paper, Dr. Leube insists upon a careful determination of the digestive powers of the stomach as an aid to the diagnosis of diseases of this organ. Two points are necessary to be determined in this direction: 1, The duration of the digestive process, and 2, the strength of the gastric secretion. The determination of the first question is made as follows: The patient takes a meal consisting of soup, beefsteak, and bread, and then for seven hours following abstains from all food and drink. At the end of this time the stomach is washed out through a soft sound, and an examination made of its contents. A healthy stomach will have completed the process of digestion by this time, so that no remains of food will be found at the examination. In women at the menstrual period digestion will be somewhat more protracted. If it be thus determined that the digestive process is not delayed, the dyspepsia is probably functional, barely possibly due to ulcer, but is most likely a nervous dyspepsia. Such an examination is of course contra-indicated when the diagnosis of ulcer is certain or when there is a tendency to hemorrhage. To determine the second point the examination of the gastric secretion must be made while the stomach is empty. The acidity is determined by means of litmus tincture or of tropæolum solution. The proportion of pepsine is ascertained by the power of digesting given amounts of albumen. The secretion of the gastric juice may be excited by the introduction of a hard sound left *in situ* for some time. Another mode is by irritation with a soda solution. After washing out the stomach about a pint of a three per cent. solution of soda is injected. After twelve minutes the stomach is again washed out. In a normal stomach the given quantity of soda is neutralized in this time, so that if the reaction is found to be still alkaline the secretion of gastric juice is insufficient. A third method of exciting the gastric secretion is by the injection of ice-water. By this means the amount of the secretion, its acidity and its proportion of pepsine can be ascertained. Dr. Leube relates a case of uræmia in which he found the gastric secretion normal, and was thus enabled to refer the dyspepsia to nervous causes. He also reports some instances of apparently uncomplicated dyspepsia which had proved refractory to all the usual remedies

which were found to be of malarial origin, and yielded readily to quinine.—*Centralblatt für Klinische Medicin*, January 5, 1884.

HÆMOSTASIS BY TRANSFUSION.—In the *Revue des Sciences*, No. 3, July, 1883, appeared an abstract of a paper by Professor Hayem on "The Formation of Intra-vascular Blood-concretions." He was led to make the experiments, the results of which are embodied in the above-mentioned paper, by certain questions as to the hæmostatic effect of injections of blood into the circulation. The paper, which has scarcely been noticed, contains facts of wide applicability to human pathology, and may be also considered as a contribution to the experimental study of hæmostasis.

It occurred to Hayem, in 1882, that the blood itself, containing active hæmatoblasts, should have a more marked influence on coagulation than other substances, when injected into the vessels. The experiments referred to, in which he studied the influence of distilled water, artificial serum (made with sodium chloride), blood-serum taken from an animal of the same and of a different species, natural, not spontaneously coagulable normal serous liquids, solution of fibrin-ferment, normal blood, and defibrinated, confirmed this opinion. The most active of all these is blood-serum. It is important to remark, however, that the modifications produced in the coagulability of the blood by intra-vascular injections is only evinced, in the living body, in stagnant blood in the interior of vessels. Furthermore, one will observe the singular fact of almost immediate coagulation of stagnant blood in a vascular area, while, apparently, nothing occurs in the general circulation; and to obtain this it is sufficient to inject a few cubic centimetres of serum into the blood. From this it must be concluded that the hæmostatic effect is only sensible in the vascular areas in which the blood is arrested or slowed in its course.

The following is quoted from Hayem's paper, already referred to. "The possibility of rendering stagnant blood more coagulable by introducing into the vessels liquids not hurtful to the organism, is applicable in therapeutics to the treatment of severe hemorrhage, and perhaps also to the treatment of aneurism. In this lies, to some extent, the experimental demonstration of the existence of active hæmostatic procedures, and of agents which, combined with the means employed for slowing the blood-current, may favor the formation of clots in aneurismal vessels. In all these cases, my experiments having been made with the various liquids utilized for transfusion, it appears certain that the principal practical result of these operations consists in the increased coagulability of the blood. This will be especially applicable in cases of severe hemorrhage, in which the blood has become less coagulable, and when there is a necessity for furnishing a renewed quantity of liquid to the circulatory apparatus."

To obtain the maximum useful effect it is necessary, as Hayem has already remarked, to use serum, that is to say, the normal liquid which, according to A. Schmidt, contains the larger proportion of the undetermined substance to which he has given the name fibrin-ferment. Normal blood is one of the less active agents for this purpose; defibrinated blood, artificial serum, or distilled water are the more active, but less so than blood-serum. It has been suggested that blood-serum from some of the lower animals be used instead of that from man, but this may cause very serious consequences. By injecting the serum of beef-blood into the vessels of a dog, death has been caused in a very few minutes, the pathological appearances being those of purpura hemorrhagica. This pathological state is the consequence of a variety of coagulation to which Hayem has given the name coagulation by precipitation. The effect of the blood-serum of another kind of animal on the circulating blood is such that it immediately becomes filled with thousands of concretions which are arrested in the smaller vessels, thus producing numerous hemorrhagic infarctions.

It would seem that Hayem has sufficiently established his theory to warrant a practical trial in selected cases of aneurismal tumors, and in cases of hemorrhage in subjects of hæmophilia. It is based upon facts which have been known for some time in a disconnected way, and we do not doubt that further experimentation will develop and strengthen it.

Indirectly apropos to this subject it has occurred to us that refusion, so successfully used by Dr. Halsted in cases of carbonic oxide poisoning, may be of great service in protecting a part of the ligation of a large artery, until the collateral circulation is established.

TRANSFUSION OF BLOOD IN BRIGHT'S DISEASE.—At a recent meeting of the Société des Hôpitaux (*Progrès Médical*, January 19, 1884), Dr. Dieulafoy read a communication on transfusion in Bright's disease. He referred more particularly to a case of uræmia in which threatening symptoms had rapidly disappeared after the transfusion of four ounces of blood; not only that, but a notable diminution of albumen was inaugurated by this measure. The patient was able to leave the hospital, but returned several weeks later, the albuminuria having again increased. Subsequently grave uræmic symptoms were developed and a comatose condition supervened. Again transfusion was practised, and again rapid improvement followed. Later on, however, the patient died, and at the autopsy small granular kidneys, immense hypertrophy of the heart, and extensive atheroma were found. In seeking for an explanation of the good effects of transfusion, in spite of such profound structural alterations, Dieulafoy emphasizes the fact that the dyscrasia of nephritis may often be more important than its organic lesions. He concluded by pointing out the absence of danger in transfusion practised on patients suffering from chronic Bright's disease.

BICHLORIDE OF MERCURY IN RINGWORM.—In the February number of the *Journal of Cutaneous and Venereal Diseases*, Dr. R. W. Taylor recommends a solution of corrosive sublimate in the treatment of the various forms of ringworm. He found that the efficacy of the mercury was much enhanced by dissolving it in tincture of myrrh. The strength of the solution was four grains to the ounce. Eczema marginatum, and ringworm in general, was readily cured by thoroughly painting the affected parts with this parasiticide solution. It was applied twice daily. He believes that the tinctures of the gum-resins make excellent vehicles for various agents in the treatment of skin diseases.

REVIVAL OF THE ALUM TREATMENT OF WHOOPING-COUGH.—Not so very many years ago alum was one of the favorite remedies for the relief of pertussis. But of late it has been almost entirely superseded by other less unpalatable drugs. Now it seems to be again entering upon a time of favor and appreciation. Dr. Warfvinge, of Stockholm, records in *Hygiea* a series of cases of pertussis of varying degrees of severity in which he employed alum with encouraging results. He exhibited the remedy, as a rule, as soon as the characteristic symptoms were declared, and the earlier the treatment was begun the better were the results obtained. In one case of a boy, eight years of age, who had had a cough for three weeks, and who had just begun to whoop, the symptoms disappeared entirely after the use of alum, in a two per cent. solution, for two weeks. In another case of a girl, six years of age, who had from twenty to twenty-five moderately severe attacks in a day, the cough was cured in ten days by the same means. The remedy was given usually in a one or two per cent. solution in equal parts of water and orange syrup, in the dose of a teaspoonful four times a day. Even in the later stages of the disease the attacks seemed to be greatly reduced in frequency and severity when alum was exhibited to the exclusion of all other remedies.

THE MEDICAL RECORD:

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GEORGE F. SHRADY, A.M., M.D., EDITOR.

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THE ENFORCEMENT OF A PLEDGE AT THE NEXT MEETING OF THE AMERICAN MEDICAL ASSOCIATION.

As the meeting of the American Medical Association is near at hand, it is proper to call attention again to a certain feature in its management which has excited much criticism. We refer to the exaction of a peculiar pledge from all members-elect.

The Constitution of the Association says: "Every member-elect prior to the permanent organization of the annual meeting . . . must exhibit his credentials to the proper committee and *sign these regulations.*" These "regulations" are specified in previous sections of the Constitution as being such as regulated the general organization of the society; they were reported in 1847 by a different committee to that which in the same year reported the Code of Ethics, and the gentlemen who wrote the words "these regulations" could, therefore, by no possibility have had in mind any ethical code. Up to the year 1883, members-elect were never required to sign the Code of Ethics. For some years previously, in fact, no signing had been done at all. For reasons which are very apparent, a revival of the practice was deemed expedient last year. The gentlemen, however, having the matter in charge did more than revive the provision of the Constitution in question. They did not simply ask members to "sign the regulations" of the Association, but they drew up the following pledge:

"CLEVELAND, O., June, 1883.

"In acknowledgment of having adopted the Constitution, By-laws, and Code of Ethics of this body, and of my willingness to abide by them, and use my endeavors to carry into effect the objects of this Association, I hereunto affix my name."—Extract, vol. xxxiii., p. 623.

Then follows name, address, etc. We think it will be very apparent to every candid reader that the above contains more than a simple "signing of the regulations." This latter would promise only conformity. The form actually presented requires the expression of "a willingness to abide by" and "an endeavor to carry into effect" these regulations, and the Code of Ethics besides. It practically cut off many gentlemen who, while willing to obey the regulations, including even the Code, wished at the same time to make efforts to change them.

It appears to be very plain that all which a judicial or other committee can constitutionally ask is a simple acknowledgment of adherence to the regulations as specified by the constitution of the Association.

It is indeed claimed that the Code of Ethics is part of the organic law of the Association, and, therefore, comes under the head "these regulations." We do not think it necessary positively to oppose this view, but simply claim that there is here a legitimate ground for difference of opinion; especially in view of the fact that the Association existed twenty-six years before it was discovered that every one must sign a paper acknowledging a willingness to abide by the Code of Ethics. Certainly there is no other scientific or social organization in the world which, at every meeting, exacts such a singular requirement.

There is, however, another phase of the matter to which we would particularly call the attention of the permanent members. The bone of contention appears to be in the clause regarding the consultation with homœopaths. This clause has always been interpreted to mean an absolute prohibition from all professional intercourse with homœopaths. The present president, however, interprets it differently, for the reason that many so-called homœopaths are not believed to be of the class that "base their practice on an exclusive dogma to the rejection of the accumulated experience of the profession."

Many other physicians believe very conscientiously that the American Code of Ethics does *not* forbid consultation with all homœopaths, contending, as does Dr. Flint, that they do not altogether reject the aids of experience and science. The query arises whether a permanent member, with such conviction fortified by the opinion of the venerable president of the Association, could not properly and conscientiously sign the regulations of the Association, even if he believes in personal liberty as regards consultations. This was, indeed, done in a few cases last year, some physicians signing under protest.

Certainly the fairest way, however, would be to require nothing but a simple signature to the regulations, asking no more than has been done in previous years.

No one can complain of such a plan; but the profession, without regard to Code sentiment, will resent a repetition of inquisitorial attempts to suppress a movement so widely felt as that for further ethical elevation and reform.

HEALTH MATTERS IN CONGRESS.

THE temper of Congress on public health matters is illustrated by its action last week in the House upon the following resolution, which was reported back from the Committee on Public Health, April 1st, with an amendment:

"*Whereas*, It is popularly charged and generally believed that divers and various articles of food, drink, and medicine are adulterated by admixture with baser and usually deleterious substances; and

"*Whereas*, Such adulterated compounds are injurious to public health and calculated to shorten human life; therefore be it

"*Resolved*, That the Committee on Public Health be authorized and directed to inquire into the truth of said alleged abuse, and to report to this House the result of their investigation at as early a day as practicable; and if it shall be shown that such practices exist, then to suggest or recommend in their report what further legisla-

tion, if any, is necessary to correct the wrong. And that they may the more effectively do their work, be it further

"*Resolved*, That said committee be and they are hereby empowered to send for persons and papers, and to employ such chemical and medical experts as they may deem necessary to carry out the aim, end, and object in view."

The amendment of the committee was as follows:

"Strike out the words, 'and to employ such chemical and medical experts.'"

A prolonged discussion of the resolution followed, participated in by Mr. Brown, of Indiana, who objected to the resolution but not to its consideration, and by Mr. Beach and Mr. Parker, of New York, and Mr. Wait of Connecticut, favoring the resolution, and by Mr. Cox, of New York, and Mr. Reagan, of Texas, in opposition.

Mr. Kasson, of Iowa, moved to amend the resolution by providing that the expenditure in making the investigation shall not exceed $1,000.

Mr. Cox moved to lay the whole matter on the table. A vote by yeas and nays was then taken, resulting in 114 yeas and 124 nays, 83 not voting; so the motion to lay on the table was not agreed to.

The previous question was then ordered, Mr. Beach accepting the amendment of Mr. Kasson, which amendment was agreed to.

The amendment to strike out the words "and to employ such chemical and medical experts" was also agreed to. The question was then taken on adopting the resolution as amended. Upon a division there were, ayes 80, nays 70—no quorum voting. Much discussion followed; Mr. Cox moved to recommit the resolution, and Mr. Beach moved to lay the motion to recommit on the table. The vote resulted, ayes 66, nays 83, so (no further count being called for) the motion to lay on the table was not agreed to. The question recurred upon the motion to recommit the resolution to the Committee on Public Health. The yeas and nays were called for and resulted, yeas 117, nays 116, not voting 88. So the motion to recommit was agreed to.

Thus the oleomargarine and other interests of that character have had a temporary victory.

GOOD MEDICAL ADVICE FROM THE "CHRISTIAN ADVOCATE."

It is with a feeling of more than ordinary gratification that we notice the wise course of the distinguished editor of the *Christian Advocate* in advising his readers concerning the proper course to pursue in case of sickness. It is so seldom that gentlemen of the standing and influence of Dr. Buckley dare to be so outspoken against quackery, and consistently practise what they preach, that we take pleasure in quoting from one of his recent articles, "On the Care of the Health," thus allowing him to speak in his own way:

"Next to intemperance in the use of alcohol and tobacco, I place as the most injurious habit common among the American people the practice of self-medication by the use of patent-medicines. . . .

"My counsel concerning medicine is this: If sick, and the symptoms are not so alarming as to demand immediate attention from a physician, take no medicine, eat nothing until appetite naturally returns, keep warm, and drink plenty of water, hot or cold. If appetite exists, reduce the food for a few days one-half or two-thirds, and make it of a simple and easily digested kind. If the symptoms do not diminish under this regimen, send for a sensible doctor. In case of a chronic disease, such as protracted indigestion, signs of lung disease, unaccountable pains in any part of the body, accompanied by any general derangement of the system, try no experiments upon yourself in the way of medicine. Take no remedies recommended by others. Pay no attention to patent-medicine advertisements, whether of drugs or gas. Believe no man who says, 'I was just as you are, I took so and so, and got well;' but consult a wise, serious, successful, and conscientious physician, tell him all about yourself, and then do what he tells you."

Well said, Dr. Buckley! These are truths plainly and bravely spoken, the patent-medicine men to the contrary notwithstanding. How few religious papers dare follow such an example! The hand of Mammon has too firm a grip upon their advertising columns to allow them to do so. More the pity for them, and more the praise for the exception. Again we repeat, in all our strictures upon the alliance between the religious newspaper and the healers who play upon the credulity of the gullible, we gladly except the *Christian Advocate*.

AN UNWISE COMMISSION.

The Commission recently appointed by the Government to inquire into the prevalence of trichinæ in American hogs has made its report, and a very disingenuous one it is. After giving one hundred and fifteen pages of irrelevant discussion and statistics, about twenty pages are devoted to the main question: how extensively is the American hog affected with trichinæ? And the commission concludes that it is less affected than the swine of Germany or France, and that any inspection of American pork would be superfluous or ineffective.

This is, we believe, the wrong way to meet the question. American swine, as we have often stated, are more largely affected with trichinæ, in many parts of the country, than are those abroad. This is clearly shown by the statistics which the present Commission collected, of examinations made from 1873 to 1883. The results were as follows:

Drs. Harding and Robbins found 16⅓ per cent. of hogs were infected with trichinæ (Indiana); Dr. Belfield and Mr. Atwood, 8 per cent., and on another occasion 2 per cent. (Chicago); Drs. Gath and Miller, 6.5 per cent. (Indiana); Dr. H. J. Detmers, 2.04 per cent. (Chicago); Dr. F. S. Billings, 4 per cent. (Boston). In the South—Dr. Deverson, 0.4 per cent. (New Orleans); Dr. C. A. Simpson, 0.6 per cent. (Atlanta); Dr. R. W. Stieger, free (Tennessee); Dr. W. Myers, 0.6 per cent. (Texas).

Thus, with but one exception, trichinæ were found on all occasions, the exception being an instance of an examination of only 180 hogs in a part (the South) where the hogs are comparatively free from infection. These figures show that the Western hogs are more or less infected with the parasite, and that certain districts are a centre of infection—the State of Indiana being pre-

eminent, with its average of over 16 per cent. Other States enjoy an unenviable reputation of 8 per cent.

The argument, therefore, for American swine, which we have always put forward, is not that they are free from trichinæ, but that, so far as known, exported American pork has not yet caused any cases of trichinosis. Upon this practical ground, our country has been able to take a strong position.

But it would be a foolish and short-sighted policy to adopt and cling to the opinion that American hogs are less free from trichinæ than those of Europe.

THE SIXTH CHOLERA REPORT OF DR. KOCH.

FOLLOWING very closely after Dr. Koch's fifth report, dated January 8th, comes another, and probably the last one for the present, dated February 2d, at Calcutta.

This latest bulletin from the cholera commission is both interesting and disappointing; interesting because Dr. Koch now announces definitely and positively that he has discovered the cholera-bacillus, but disappointing because he does not give us the demonstrative evidence that his announcement is true.

The organisms which the commission believe to be the cause of cholera are described as follows:

"They are not quite straight, as other bacilli are, but slightly curved, comma-like. The curvature may be even so marked that the stave may almost present a semicircular form. From these curved staves, S-shaped figures, and more or less elongated, slightly undulating, linear forms may be developed in 'pure cultivations,' of which the first two segments and the last correspond to the form of the bacilli as found in cholera, and which, continuously increasing in number, remain attached to one another." Furthermore, they manifest very lively voluntary movements, which are best seen when examined in a drop of nutritive fluid suspended from the under surface of a cover-glass. In such a preparation the bacilli may be seen to swim with the greatest celerity across the field. Their behavior in nutrient gelatine is particularly characteristic; they form colorless colonies in it, which are closed at first, and look like strongly refringent accumulations of glass-fragments. These colonies gradually liquefy the gelatine, and extend themselves over a limited area. Further, they may be distinguished with tolerable certainty when cultivated in hollowed slides, as they are always found at the margin of the drop of nutritive fluid, and their peculiar movements may be observed as well as their comma-shaped forms after the application of solutions of anilin-dyes.

These bacilli were found in all the intestinal discharges of cholera-cases, and in the contents of the intestinal canal at post-mortem examinations, but not in any other disease, nor were they to be found in specimens of dirty water from various sources. As it is known that cholera-like symptoms are induced by arsenic, an animal was poisoned with this substance, but cholera-bacilli could not be detected.

They were only twice observed in the vomit. In the early feculent dejections only a very few were present. As the dejections became odorless and watery they appeared in great numbers, while all the other bacterial forms coincidently disappeared. As the dejections returned to a natural character again, the bacilli disappeared.

Inoculation of the cultivated bacilli in lower animals uniformly failed to produce the disease. Dr. Koch believes, furthermore, that such attempts will always fail, because although cholera has been endemic throughout Bengal for years, no instance of the disease occurring in animals is known.

The opinion that the peculiar bacillus described is the specific cause of cholera rests upon other evidence, therefore, than that of inoculation. This evidence consists mainly in the fact that the organism is limited to the seat of the disease, that it is not found in other tissues or in other diseases, and that its activity keeps parallel with that of the cholera process. To the very obvious objections that the growth of the peculiar bacillus is simply favored by the peculiar conditions of the disease, Dr. Koch gives answers which cannot possibly satisfy scientific criticism. The great confidence felt in the carefulness and skill of the distinguished investigator, however, will lead many to accept his judgment, but such acceptance must as yet be based more on faith than sight. In fine Dr. Koch has found a bacillus, but he has not found, for science, the cholera-bacillus.

News of the Week.

SPONTANEOUS GENERATION.—An international competition is invited by the Second Teyler Society of Haarlem, for a gold medal worth four hundred florins, for a critical study of all that has been said for and against spontaneous generation, especially during the last twenty-five years. Details may be had by application to "La Maison de la Foundation de feu M. P. Teyler van der Hulst, Haarlem."

THE SENTIMENT FOR HIGHER INDIVIDUAL MORALITY.—We venture to say that if every member of the American Medical Association had the courage to speak and vote just as he feels and thinks, more men would be found in sympathy, proportionately, with the New Code movement than have ever dared express themselves in favor of the New York Code in New York State.—*Denver Medical Times.*

CHARITY ORGANIZATION WORK.—We have received the report of the District Committee of the Tenth District, showing what has been done in relieving pauperism during the past year. The report states that a corps of forty *Friendly Visitors* has been organized, a directory of the district prepared, visits made, and cases investigated. We trust that similar organizations will soon be made for the whole city. By their aid the abuses of medical charity could be lessened.

THE LONDON HEALTH EXHIBITION.—The New York City Board of Health has appointed Dr. Woolsey Johnson and Professor C. F. Chandler delegates to the London Health Exhibition, which opens in May.

THE HOMŒOPATHIC PHYSICIANS OF ST. LOUIS have been circulating a petition for presentation to the city fathers, asking that a portion of the City Hospital be set aside for treatment of patients according to the methods of their school.

MEDICAL LEGISLATION IN CONGRESS.—Mr. Finnerty, of Illinois, introduced a bill for the purchase of grounds and the erection of a house for disabled and indigent sailors of the U. S. Merchant Marine and Navy at Chicago, which was read a first and second time and referred to the Committee on Naval Affairs and ordered printed. Mr. Barksdale, of Mississippi, reported back with an amendment the bill providing for the purchase of property on Staten Island, N. Y., for a marine hospital, which was referred to the Committee on Appropriations, and the accompanying report ordered printed. Mr. Hoar, of Massachusetts, presented a petition in behalf of the Moral Education Association of Massachusetts, asking for the insertion of certain limitations in any bill that may be passed by Congress to amend the act entitled "An Act to Prevent the Introduction of Infectious and Contagious Diseases into the United States and to Establish a National Board of Health," which was referred to the Committee on Epidemic Diseases. Mr. Frye, of Maine, presented the petition of the New York Committee for the Prevention of State Regulation of Vice, officially signed, praying that the jurisdiction and powers of the National Board of Health be specifically defined and limited. Same reference as above.

THE PROTECTION AND PRODUCTION OF MEDICINAL PLANTS.—Mr. Morse, of Massachusetts, presented a petition from the Massachusetts Pharmaceutical Association praying for an appropriation to provide for the introduction of foreign medicinal plants and the protection of domestic medicinal plants.

DR. HENRY I. BOWDITCH AND THE AMERICAN MEDICAL ASSOCIATION.—Dr. Bowditch, of Boston, ex-President of the American Medical Association, was invited to participate in a debate at the meeting of the Association in June. In his reply to this invitation Dr. Bowditch regrets his inability to be present, and mentions as one of the chief causes of this regret the fact that he will thus be obliged to forego participation in the discussion on the Code, which he believes "will inevitably come up, with disastrous consequences." Speaking for Massachusetts, he says the terms of admission to its State Medical Society were established long before the American Medical Association was thought of. Its "Code," he intimates, is superior to that of the National Association, and its delegates will not consent to bind it to give the latter preference. He sees in the action of the Judicial Council, at Cleveland last year, requiring the signatures of delegates to a renewal of their fealty to the Old Code, an apparent trick, which, he intimates, will scarcely bear a repetition. He maintains that the fact that a physician does not wish to sign the whole Code, many parts of which he declares to be the height of absurdity, "is no proof that he is an unworthy person to act as a delegate from a State society of honorable physicians." He should object to signing the Code because of these absurdities. We would add, without comment, that Dr. John V. Shoemaker, of Philadelphia, thinks directly the opposite.

THE DRUG TRADE IN 1883.—Mr. D. C. Robbins, of this city, has prepared an elaborate review of the drug trade of New York for the twenty-sixth annual report of the Chamber of Commerce. He says that during 1883 manufacturers of special articles which are controlled by patents or by combinations of capital have made money, while ordinary business transactions have neither brought good profits nor heavy losses. Special attention is called to the growth of the opium traffic in this country. Mr. Robbins says: "It is noteworthy that while the importation of crude opium for medicinal purposes varies but little, as we imported 229,012 pounds in 1883 and 227,126 pounds in 1882, the increase in the importation of manufactured opium for smoking purposes has been enormous. We imported in 1883 of this vicious preparation 298,153 pounds, against 106,221 pounds in 1882, and the Government received, at $6 a pound, a customs revenue of nearly $200,000,000." The imports of cinchona bark for the year ending December 30, 1883, were 11,250 bales, against 29,200 bales in 1882 and 31,700 bales in 1881. The sales of bark in the New York market in 1883 were 14,150 bales. Mr. Robbins states that the average of bark from South America now in the markets of the world will not yield more than one and a half per cent. of quinine.

A DIPLOMA MILL IN ST. LOUIS.—The daily papers of St. Louis contain an account of "The American Anthropological University," an institution chartered in 1875 by the Legislature of Missouri, and having a central office in Logansport, Indiana. The object of the Association was the establishment of branches all over the world, and "the conferring upon graduates and such other persons as may be deemed worthy any academic or honorary degrees as are usually conferred by similar institutions of learning." It seems to have been the object originally to institute examinations in various branches of learning, and after the examinations degrees were to be granted. The scale of prices was as follows: M.E.L., $5; Business College, $10; A.M., $15; M.D., $25; D.D., $25; LL.D., $50; A.B., $10; Ph. Student, $10; B.L., $25; D.D.S., $25; Ph.D., $25. The "University" was gotten up by a visionary clergyman, who died last December. Attention was called to it through inquiries made in England and Scotland, where it was found that a number of clergymen had secured the degree of D.D. The Association appears to be now practically defunct, and it is not thought that it ever did a very active business.

THE SOUTHERN MEDICAL COLLEGE, of Atlanta, Ga., held its annual commencement on February 25th, graduating fourteen.

THE MEDICAL DEPARTMENT OF THE WESTERN RESERVE UNIVERSITY held its annual commencement in February, graduating a class of seventy-three.

DEATHS AT FOOT-BALL.—The "Rugby game" and the "toy-pistol" will soon have to be classed together as equally potent agents of destruction. The result in one day of four foot-ball matches played in England was that two young men lost their lives and two sustained fractures of the leg. One of the deaths was caused by fracture of the odontoid process due to an attempt to use the head as a battering-ram. One of the fractures was a severe compound one. The constituted authorities, says the *British Medical Journal*, ought to be able to make regulations which will diminish the present high rate of mortality and accident.

THE CODE IN DAKOTA.—Perhaps one could expect nothing better than the following from Dakota. It is written by Dr. Edward Watson, of Sioux Falls, to the *Medical Age*. "To see the true beauties of this instrument [the Code] in the organization of medical societies governed by it, one must live on the frontier prairies and see the class of men who organize these societies. Abortionists, drunkards, blackguards, and disreputable characters of every kind—these are the loudest in their talk about the glories of the Code. It matters not that none of them has ever read it nor has the faintest idea of what it means. It is sufficient for them that it is 'the correct thing' to laud and swear by it."

MEDICAL DIPLOMAS AT BUFFALO.—A despatch states that the Erie County Medical Society is taking steps to prevent the granting of medical diplomas by the Niagara University, otherwise known as the Seminary of Our Lady of Angels, situated at Suspension Bridge, Niagara County. Such diplomas granted by the institution are declared illegal, since the college has authority only to confer degrees in military courses. The attorneys for the society have made an examination into the matter, and furnished the Board of Censors with an elaborate opinion to that effect.

CANADA MEDICAL ASSOCIATION.—The meeting of this Association will take place in Montreal on August 25th, 26th, and 27th. The meeting of the British Association for the Advancement of Science begins on the 27th of the same month.

PITY THE PHYSICIANS.—Medical men may not be very rich, but they are a busy class and by no means unhappy. Therefore they would object to the title of an article in the New York *Sun*, "Pity the Physicians." The demand for pity is based on an interview held by a *Sun* reporter with a New York physician. The latter says: "To tell you the truth, the medical profession is poor—very poor. And doctors who talk of incomes of twenty or twenty-five thousand a year simply talk for effect. I earn from twelve to fifteen thousand and think myself well off if I actually collect one-third of it. The rest I may or may not get some day—probably not; and I know that my practice is larger and my clientèle more lucrative than that of at least one pretender to $25,000 that I could name. I keep a carriage, to be sure, and a colored man with very bright buttons; but it is often that I haven't a dollar in my pocket to pay for a cab if my own equipage should happen to break down a couple of miles away from home." "But how would the substitution of a State Board of Examiners for the present system mend the matter?" asked the reporter, to whom this lugubrious view of the situation was novel. The reply was interspersed with copious citations from a budget of statistics gathered by the friends of the movement. There is now, it seems, in ratio to population, such an excess of doctors in the United States that the best equipped graduates start with scarcely a prospect of success. Taking the whole area of the United States into calculation, the ratio is 1 doctor to every 650 persons. In this State it is 1 to 600; in this city 1 to 550. In England the ratio is 1 to 1,800; in France, 1 to 2,300; in Germany and Austria, about 1 to every 2,000. In any community, city, town, or country district the number of persons constantly sick is found to be 18 to 22 in 1,000—depending upon salubrity of situation and other conditions. It is safe to say that in this city the number, in every 550, who are regularly on the sick list is not more than 10; and so, on the average, New York has one physician to every ten sick persons. Count out two or three of the ten as disabled by age or incurable disease, and at least one as too poor to pay, and a physician has an average of six or seven paying patients. Of course, some have fifty to a hundred patients, and a great many have two, three, half a dozen, or more; but the average ratio is not altered by this inequality of distribution. The best that half a dozen patients could be depended upon to pay, on the average, would be $800 to $1,000 a year. "It is supposed," the physician added, "that with a common English education to start with, any young fellow with a tolerable memory, and $300 to spare, can enter the profession in two years, and be ready to commence practice. No preliminary collegiate degree is necessary to matriculation. A clever ploughboy, by passing no more than an actual twelvemonth in the college, can obtain his diploma; and, in many cases, all that is required of students is to matriculate, and take out and pay for two sets of lecture tickets. They may attend or not, as they wish. It is believed, by the best friends of the movement for a higher standard of medical education, that one condition precedent to success is to take from the college diploma its prima facie right to practise, and to vest that right in a license granted by an independent board of examiners only after a rigid and stringent examination. The colleges have uniformly opposed this movement as detrimental to their interests; and so far, though supported by the ablest men in the profession, with few exceptions all legislation directed to that end has failed."

SUING A STEAMSHIP COMPANY FOR INSUFFICIENT MEDICAL CARE.—Mr. Anthony O'Donnell, of Pittsburg, is about to sue a well-known, reputable ocean steamship company for damages for the loss of his wife. She died, it is said, from heart disease, but the company was negligent, it is charged, in that during her illness, which lasted for several days and was caused by sea-sickness, no one, from the captain to the stewardess, and not excepting the surgeon of the ship, paid her even one visit. "There is too much reason," says *The New York Times*, "to believe that the case does not stand alone. The medical transatlantic service, as a whole, is wretched. According to a recent return to Parliament, only 27 of the 141 surgeons who had charge of the ships bringing passengers to the United States were qualified men over thirty years of age; 46 were under twenty-five; 60 would have been ineligible for service in any British regiment, man-of-war, or prison. That is to say, the passengers were at the mercy of medical men incompetent to kill or cure convicts and paupers. As the rate of mortality is 1 to 509, it appears how shocking this is. The trouble is, the service is disorganized and uncontrolled. A surgeon has no rank among a ship's company, and his wages, at the best, are about $50 monthly. His employment is usually by the voyage, like a common sailor. He has no assistant, and not seldom undertakes the duties because he is an invalid and needs the voyage."

CARRYING OUT THE SUGGESTION.—The *Lancet* writes: "Every week we are flooded with hand-bills, pamphlets, and newspaper advertisements by practitioners whose names appear in the Medical Directory. These are evidently doctors who are carrying out such a plan as has been so unfortunately permitted by our venerable friend of the American Medical Association, viz., that of 'printing and publishing a doctor's card (with his limitation)' as freely as he likes"

PROF. ALFRED STILLÉ, of the University of Pennsylvania, is to tender, early in May, his resignation of the chair of the Theory and Practice of Medicine, which he has held for nearly twenty years. The reason assigned is that he is nearly seventy-one years of age, and desires to lay aside the cares of teaching and enjoy a well-earned rest and recreation. It is thought likely that Dr. Pepper will succeed him as Professor of the Theory and Practice of Medicine.

THE SIMS MEMORIAL FUND.

To the Medical Profession and Others throughout the World:

The great achievements of Dr. J. Marion Sims call for some more lasting testimonial than obituaries and eulogies. To him medical science is indebted for much brilliant and original work, especially in gynecological surgery. Those who have been benefited by his teachings and new operations, and such as have had the direct advantage of his personal skill are among the first to recognize and acknowledge this debt.

To him is due the honor of giving the first strong impulse to the study of gynecological surgery in America.

It is believed that the medical profession everywhere, the vast number of women who owe their relief from suffering directly to him, and those who realize the benefits he first made possible, will gladly unite thus to honor the man through whose original and inventive genius such blessings have been conferred upon humanity.

At the suggestion of many friends, therefore, the subjoined committee has been organized, and it is proposed that a suitable monument be erected to his memory in the city of New York.

To this end the active co-operation of the medical profession and the many other friends of Dr. Sims throughout the world is respectfully solicited. Contributions of one dollar and upward may be forwarded to the journal which has been constituted the treasury of this fund—THE MEDICAL RECORD, New York.

FORDYCE BARKER, M.D., *Chairman.*
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Henry F. Walker, M.D., "	20 00

THE USE OF THE OLEATES IN SKIN DISEASES.—In a communication on the above subject in the *Medical and Surgical Reporter*, March 15, 1884, Dr. Stelwagon speaks as follows: Of all the oleates so far introduced for the treatment of diseases of the skin, the following may be considered as possessing therapeutic powers which experience has attested: oleate of mercury, oleate of zinc, oleate of lead, and oleate of bismuth. The other oleates have as yet failed in adequately supporting any attested claim to curative powers; further experience in their use may, however, prove them worthy of a permanent place in dermic therapeutics. In ordering the oleates several points are to be kept in mind. If the action of the proposed ointment is to be mainly protective, then the oleate is best made up with one of the paraffinates; if there is to be a certain amount of penetrating power along with a protective influence, then a mixture of lard or oleic acid with a paraffinate is to be prescribed as the base of the oleate ointment; again, if absorption is the main point aimed at, then the oleate compound should be made up of lard, oleic acid, or a combination of the two. In some cases (and they are by no means few) the oleates are found to disagree; instead of an improvement, a slight or marked aggravation occurs. In not a few instances this may be due to the bad quality of the oleate used, but that it may occur with oleates which are of the best manufacture is beyond question. Oleates, if properly prepared, will keep almost indefinitely; but if prepared in the old way, with an excess of oleic acid present, they will frequently be found to deteriorate. In conclusion, it may be said that the oleates are to be considered merely as additional means of treating cutaneous diseases, and are in no sense to be looked upon as panaceas, for often enough they must be discarded to give place to the older and tried methods of dermic medication.

Reports of Societies.

MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.

Adjourned Stated Meeting, April 7, 1884.

ALFRED C. POST, M.D., LL.D., PRESIDENT *pro tem.*

INTESTINAL OBSTRUCTION—REPORT OF THE COMMITTEE ON THE COLLECTIVE INVESTIGATION OF DISEASE.

DR. DAVID WEBSTER, Chairman (Dr. Joseph W. Howe, Associate Member), reported that the Committee had received the records, more or less complete, of 51 cases. In 47 there was *total* obstruction of the bowels, and in 4 the obstruction was incomplete.

In 24 cases there was no stercoraceous vomiting, and in 3 cases there was no obstinate constipation. In *one* case there was no vomiting at all, only nausea, and in *two* of the cases, in which the vomited matter was not stercoraceous, it had a gangrenous smell.

Twenty-one cases out of the 51, or over 41 per centum, recovered.

It is interesting to note that out of 9 cases in which the abdomen was opened and peritoneal bands found and divided, there were two good recoveries. There would probably have been a third but for imprudence on the part of the patient and his friends.

The age of the patient is reported in 31 cases: Five years of age and under, 7; five to ten years of age, 1; ten to twenty, 1; twenty to thirty, 8; thirty to forty, 5; forty to fifty, 2; fifty to sixty, 6; over sixty, 1.

As to *sex*, that of only 30 patients is reported, of which 22 were males and 8 females.

In 16 cases the causes of the obstruction were ascertained by operation or by autopsy. They were peritoneal adhesions in 11 cases; twists in the gut in 2 cases; stricture of the gut in 1 case; invagination of the gut in 1 case, and impacted fæces in 1 case.

THE CHAIRMAN then read the histories of the cases reported. First those sent by Dr. T. Herring Burchard, who concludes his report as follows: "Nine cases of intestinal obstruction have fallen under my observation. In *seven* only have I complete histories, or been able to verify the diagnosis by operation or autopsy. The other two cases recovered. The principal symptoms were local distress, increasing to intense paroxysms of pain, distention, vomiting, collapse (more or less prolonged), and in four out of seven cases stercoraceous vomiting. I have performed gastrotomy or abdominal section three times. In the *first* case, death from collapse occurred in eight hours; in the *second* case, recovery; in the *third* case, recovery from the operation, but death took place on the seventh day from acute peritonitis resulting from rash feeding. In all the cases obstinate constipation was a marked feature (of course fecal accumulations in the rectum or colon are excluded). Gaseous dilatation of the gut *above* the stricture I regard as a highly significant diagnostic symptom."

Dr. A. B. Atherton, of Fredericton, N. B., Canada, reported *four* cases of internal strangulation of the bowels; three of the patients were operated upon. The report closed with the following remarks: "There can be no question I think that it is of the utmost importance in all cases of internal strangulation, just as in external, that operation for its relief should be undertaken as early as possible after the symptoms have become clearly established, and after perhaps one or two attempts have been made to relieve it by large enemata. In order, of course, that resort may be judiciously had to the operation, it is first to be decided pretty certainly that this condition of things exists. The points on which I should rely in making a diagnosis in these cases of twists and bands are the following, viz.: The sudden onset of the symptoms; the persistence of the eructations and vomiting; the non-passage of wind per anum, except in cases where the occlusion is incomplete, as in the third reported above; the absence of the *board-like* feel of the abdominal walls which is got in ordinary peritonitis; the sometimes irregular form of the abdominal enlargement; in some cases where the strangulation is high up in the small intestine the entire absence of any distention of the abdomen; and finally the occurrence of either intestinal or stercoraceous vomiting after the first two or three days. The last-named symptom is of course an important one in *fixing* the diagnosis, but it is apt to occur rather late in the disease, and therefore is not so useful in leading to an early diagnosis as some others. It was present in a more or less degree in all the cases reported, but in only the *first* was it distinctly *stercoraceous*. I should mention that the previous history will assist, as in Case 2, in making a diagnosis. I was not able to decide certainly that the water used in the enemata stopped at any one point in the bowels, but I imagined that, in one or two of these cases, there was a point corresponding to the seat of the obstruction where the wind as it rolled about seemed to bring up. This was most noticeable at the time when an eructation occurred. In all three cases operated upon I made my incision below the umbilicus near the median line, and used Listerian precautions throughout."

The Chairman continued the reading of reports of cases received from Drs. A. C. Post, H. J. Boldt (3), B. A. Clements, U.S.A. (3), D. Steinach (3), Henry Dessau (3), Thomas W. Busche (3), J. Henry Fruitnight (4), N. J. Hepburn (3), William C. Hunter (2), W. A. Ewing (2), E. H. M. Sell (3), J. Hilgard Tyndale (2), W. H. Passmore (1), George G. Needham (1), Wendell C. Phillips (1), Frank W. Merriam (1), An Anonymous (?) Physician (2), and J. N. Farrar (1).

Near the close of the reading of the histories of the cases, DR. PIFFARD moved that the further reading be suspended, that the entire report be entered upon the minutes, printed, and that discussion be postponed until after the members shall have received the printed copies. Carried.

Under the head of unfinished business, Dr. Piffard brought up the subject-matter of the bill now before the Assembly to incorporate

A COLLEGE OF MIDWIFERY IN THE CITY OF NEW YORK,

and commented at some length on the provisions of the bill. DR. A. W. WARDEN offered the following preamble and resolution, which gave rise to a spirited discussion, participated in by Drs. T. H. Manley (who opposed it), Piffard, Corning, Garrigues, Garrish, and Lewis, and was adopted with only one dissenting vote.

Whereas, An effort is being made to incorporate, by act of Legislature, a private institution under the name and title of the College of Midwifery of the City of New York, asking that such proposed institution have the right to confer the degree of graduate in midwifery, and that such diploma be a license to practise midwifery in the State of New York; and,

Whereas, The bill incorporating such institution is defective in many important respects, and the objects sought by such bill are considered injurious to the interests of the people of the State of New York, and to the medical profession of the State; and,

Whereas, No opportunity has been afforded to the medical profession of this State or to the Medical Society of the County of New York to be heard in regard to this measure; therefore,

Resolved, That the Medical Society of the County of New York hereby petition that the Assembly of the State of New York defer action until such time as this Society can be heard in opposition to such measure.

Resolved, That a copy of this resolution, signed by the President and Secretary of the Medical Society of the County of New York, be transmitted without delay to the Assembly of the State of New York.

DR. PIFFARD then moved that a committee be ap-

pointed to go to Albany, as soon as practicable, to oppose the bill now before the Assembly, and that the Comitia Minora be requested to appropriate a sum of money sufficient to defray the ordinary expenses of such committee. Carried.

DR. GARRISH moved that the committee consist of two members, to be appointed by the Chair. Carried.

THE PRESIDENT appointed Drs. A. W. Warden and H. J. Garrigues as the committee.

THE SECRETARY announced the death of Drs. John Hurdsfield, P. W. McDonnell, and James Kennedy.

The question of delegateship to the next International Congress was referred to the Comitia Minora with power. The Society then adjourned.

THE PRACTITIONERS' SOCIETY OF NEW YORK.

Stated Meeting, March 7, 1884.

DR. BEVERLEY ROBINSON, PRESIDENT, *pro tem.*, IN THE CHAIR.

DR. A. BRAYTON BALL read a paper entitled

SOME REMARKS ON THE ACOUSTIC PHENOMENA PRODUCED BY THE FLOW OF FLUIDS IN TUBES, AND ALSO UPON THE SITE AND MECHANISM OF CARDIAC FUNCTIONAL MURMURS (see p. 393).

DR. W. J. MORTON suggested that the murmur under consideration might be due to change in the position of the pulmonary artery itself; for instance, an increased curve upward.

DR. BALL said the experiments of Balfour and Russell showed that there was a change in the pulmonary artery, not the curve spoken of by Dr. Morton, however, but simply that the artery was brought up farther and carried over to the left, and that such a change had no effect whatever in producing a murmur.

DR. F. P. KINNICUTT had been greatly interested in Dr. Ball's paper, which presented the most satisfactory *résumé* of the literature of the so-called anæmic murmurs with which he was familiar.

He confined his remarks to the systolic murmurs heard at the apex and in the second interspace in many cases of chlorosis and anæmia. In his own experience, in a large proportion of patients suffering from those conditions, in whom a systolic murmur was heard in the second left interspace, a corresponding murmur was also audible in the mitral area. The latter was usually fainter than the former, as a rule was heard *only* over the mitral area; frequently there exists no more than a systolic impurity at the apex in these cases, especially in the early stage of the affection. He had been led to believe that the two murmurs were quite distinct from one another in their pathology. He thought that it would be generally admitted at the present time, that the conditions which obtain in anæmia, viz., general muscular relaxation, in which the heart tissues share, and which theoretically and in reality, as is demonstrated by post-mortem examinations, result in dilatation of the heart cavities, might suffice to produce mitral insufficiency and a consequent mitral systolic murmur. That the systolic murmur heard in the second left interspace in such cases was simply conducted from the auricular ventricular orifice to this situation through the dilated appendix of the left auricle. He had been led to disbelieve, through a study of the careful anatomical investigations of Dr. Russell, of Edinburgh, and from some recent personal ones, Naumyn and Balfour's theory of the pathology of the murmur heard in the second interspace, which necessarily assumes a fairly free regurgitation through the auricular ventricular orifice, and the near approach of the dilated left auricular appendix to the chest-wall, during the ventricular systole. And again, that the maximum point of intensity of the systolic murmur in the second space is not over the pulmonary artery at all, but is at a point one inch and a half to two inches to the left of the left sternal line in this space. Dr. Russell has given a detailed report of six autopsies with particular reference to the first of the above-mentioned points. In all the cases the heart cavities were positively dilated without the existence of valvular affection. Careful examination demonstrated that in a moderate degree of dilatation the conus arteriosus occupied the second left space, that the same space was occupied by the pulmonary artery, and that the left limit of the vessel was from one and a half to two inches to the left of the sternum. In a greater degree of dilatation the conus arteriosus occupied the inner part of the second space for about two inches, and the pulmonary artery was under the second rib. In both degrees of dilatation the auricular appendix was *invisible* from the front and was deeply buried beneath the pulmonary artery and the adjoining ventricle.

Dr. Kinnicutt was able to supplement these observations by some which he had recently made, only one of which he ventured to consume the time by relating.

J. B——, aged fifteen years, died in hospital of parenchymatous nephritis of several months' duration, induced apparently by exposure. During the last weeks of his life he was markedly anæmic. Physical examination of the heart during life revealed a soft systolic murmur over the mitral area, not transmitted to the left. A much louder, but soft systolic murmur was also heard in the second left interspace, with its maximum point of intensity apparently one inch to the left of the left sternal line. The autopsy was made in my presence by Dr. Ferguson, the pathologist of the hospital. The intercostal muscles were first removed, by my request, without disturbing the sternum and the attached cartilages, the pericardium incised, and the heart and its great vessels viewed in situ. The conus arteriosus and the pulmonary artery occupied the inner and upper portion of the second space; the left limit of the pulmonary artery was one inch to the left of the left edge of the sternum. The *extreme tip* of the left auricular appendix was seen projecting beyond the pulmonary artery, the remainder of the appendix being deeply buried beneath the vessel. The distance from the internal surface of the lower border of the second costal cartilage to the tip of the appendix measured *one inch and a quarter*. The left ventricle was hypertrophied and dilated, and the muscular tissue contained some fat.

The left auricular appendix was not apparently dilated. The valves were normal. Weight of the heart, fourteen ounces. The above cases would seem to demonstrate, in the first place, the possibility of a dilatation of the heart cavities, and in my own case of a consequent insufficiency of the mitral valve without valvular disease; and secondly, the apparent *impossibility* of any close proximity of the left auricular appendix to the chest-wall in such cases; and upon the presence of the latter condition mainly rests Balfour's theory of the mode of production of the systolic murmur in the second space. Dr. Russell had also shown that the pulmonary artery in cases of dilatation frequently bears sufficiently to the left to correspond to the site claimed by Naumyn and Balfour as belonging exclusively to the auricular appendix. Dr. Kinnicutt's measurements of the breadth of the normal pulmonary artery corresponded with those given by Pirogoff; it varying from one inch to an inch and a quarter.

He personally had been unable to localize the maximum point of intensity of the systolic murmur in the second left space, heard in cases of anæmia, as closely as Dr. Balfour. As a rule, it has seemed to him to obtain about one inch from the left edge of the sternum, which was quite within the limit of the pulmonary artery even in health. While he, therefore, was unable to accept Dr. Balfour's theory of the pathology of the systolic murmur heard in the second left space in chlorosis and anæmia, he was wholly in accord with his belief that a mitral insufficiency exists in these cases.

Dr. Russell's theory was certainly one of intrinsic merit, and, it seemed to him, was not yet disproven.

The commonly accepted theory of the pulmonary origin of the murmur, with its dependence upon an altered composition of the blood, had yet to be clearly explained by its authors and supporters. In conclusion, he would ask the members if their experience coincided with his own, in regard to the very frequent existence of a mitral systolic apical murmur in connection with a similar murmur heard in the second left space in cases of chlorosis and anæmia, and also as to the maximum point of intensity of the latter murmur.

Dr. Sexton remarked that the question seemed to divide itself into two parts: (1) the source of the sound, and (2) its transmission to the ear. It seemed, as he thought, that if it originated in the cardiac orifice, its transmission to the walls of the chest must be in every direction from its source, and that it would be best heard, perhaps entirely, through the rapidly flowing current of blood by which it was propagated. Therefore, at the point wherever the vessel came nearest to the walls of the chest, the sound would be heard best.

Dr. Beverley Robinson suggested that inco-ordination of the contractility of the muscular fibres of the cardiac valves might explain some murmurs heard during life, which received no explanation post mortem.

Dr. Ball said that was Walsh's idea, namely, that certain murmurs were due to spasm of the papillary muscles, but he thought the idea had been abandoned, because it was nearly impossible to suppose that the cardiac muscle generally acted regularly while in particular portions there was an irregular movement. Besides, it was difficult to believe in a continuously recurring spasm, such as would be necessary to account for the so-called dynamic murmur of chorea for example.

With reference to testing cardiac valves after death, he thought it amounted to little or nothing, because the cardiac muscle is not in the same condition as it is during life. McAllister had shown that the base muscles of the heart play an important part in closing the orifices in that portion; that is, squeezing them together so that the valves can completely close them; and that when the base muscles are weak, or unable to do that work under certain conditions, the orifices are not compressed so that the valves can close them, and a murmur is heard temporarily independent of anæmia. Besides, it was well known how incomplete the tests for anæmia were, and there might be very defective general nutrition, probably involving the cardiac muscle also, without giving rise to any of the ordinary symptoms of anæmia, such as pallor, etc.

Dr. Sexton thought it not impossible that the solar plexuses which supply the heart might act irrespective of each other, and thus give rise to irregularity in the action of the cardiac muscle in different parts of the heart.

Dr. Ball said that perhaps it was possible, but it seemed to him to be very unlikely that such was the fact.

According to his observations, cases differed a good deal with reference to the point of maximum intensity; in quite a number the point of maximum intensity was nearer the sternal border than one and a half or two inches, and it also was extremely common to hear the murmur in the greatest intensity as far away as that distance.

With regard to an apical murmur heard in the second interspace, he was sure that it was not at all infrequent, but usually not so loud.

Dr. Morton suggested that the microphone might aid in determining the exact point at which the murmur could be heard with the greatest intensity.

Dr. Sexton suggested that unless care was taken, a second murmur might be produced by the ordinary binaural stethoscope.

Dr. Ball thought the sounds produced by the stethoscope should not be mistaken for murmurs by any one at all conversant with listening to cardiac murmurs.

Dr. Kinnicutt thought it impossible that the noises produced by the stethoscope could have the rhythm and variation in pitch and quality accompanying cardiac murmurs. The Society then adjourned.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, April 3, 1884.

Horace T. Hanks, M.D., Vice-President, in the Chair.

REMOVAL OF THE AFTERBIRTH—CREDE'S METHOD.

Dr. H. J. Garrigues read a paper on the above subject, and began with the explanation that he made a distinction between placenta and afterbirth, the latter including the placenta and membranes. His remarks also referred only to cases of labor at or near full term, and not to abortion.

Thirty years ago Crede published his method of removing the placenta, which was by pressure from above, and not by traction from below. After the expulsion of the child the accoucheur lays the entire hand upon the abdomen over the region of the womb and makes slight friction; when the uterus is felt contracting he seizes it with one or both hands, placing the thumbs in front, and when the contraction reaches its maximum he presses the entire organ, kneading it with his fingers and thumbs, in the direction of the cavity of the sacrum. When the uterus is manipulated in this way, the afterbirth may come away with the first contraction; but in most cases it does not until the third or fourth. The pressure must not be made when the uterus is not in a state of contraction.

German authorities claim that this method gives rise to several disadvantages, but, especially, difficulty in removing the secundines. The author of the paper had practised the method during the last eight years, satisfactorily to himself. He then gave the results with this method in 406 cases under his direction at the Maternity Hospital. There were six cases in which part of the membranes were removed separately after the placenta had been expelled. There were 400 cases in which Crede's method was employed, and in only six did it fail. All the method did was to increase the normal contraction of the uterus by which the afterbirth was expelled. Dr. Garrigues then gave a description of the physiological action of the muscular and ligamentous structure of the uterus, all of which were closely imitated by Crede's method.

In 408 cases post-partum hemorrhage had occurred in only two, and he regarded the method, when properly carried out, as the best means of preventing this complication. Downward pressure upon the fundus must never be practised except when the uterus is contracted.

According to Crede the average duration of the third stage of labor had been 4½ minutes, but, according to the experience at the Maternity, it had been somewhat longer.

Dr. Garrigues then referred to the history of the method and the question of originality with Crede. The method has the following features:

1. It can be used in all cases. 2. The uterus is grasped from all sides with both hands. 3. The placenta is squeezed out by decided pressure during uterine contraction. 4. The cord and placenta are never touched except in rare cases, when the placenta is adherent and has to be peeled off from the uterine walls. 5. The fingers are not introduced into the genital canal, when the danger of infection is much greater than before the passage of the child.

Dr. Garrigues then spoke of the advantages of the method, discussed the merits and demerits of the method by drawing upon the cord, also the let-alone method, and concluded by saying that he thought Crede's method should be applied first. Pulling upon the cord or the expectant treatment could not be commended, and both had decided disadvantages.

Dr. A. S. Hunter believed that the uterus should always be allowed to expel the fœtus, not only from itself but from the vagina, unless there were special contra-indications. Withhold manual aid and the uterus would almost invariably contract firmly upon the pla-

centa and be followed quickly by the completed third stage. This method also guarded very efficiently against excessive post-partum loss of blood. Removing the fœtus rapidly might be followed by uterine inertia which required the most pronounced "expression" to deliver the placenta.

Dr. A. Hadden spoke of the importance of thorough completion of the third stage of labor, especially with reference to preventing the occurrence of post-partum hemorrhage, and also subsequent conditions so commonly met with by gynecologists.

He had attended 2,400 cases of labor, and in the last 1,000 cases the records of which he had just consulted, 1 death occurred from hemorrhage (the woman was suffering from purpura hemorrhagica). There were 6 deaths from causes incident to labor: 1 from paralysis of a hypertrophied and dilated heart, after a difficult labor, 2 from rupture of the uterus, 1 from the effects of a tedious labor, and 1 from abscess.

His method of managing the placenta had been partly by traction and partly by pressure upon the fundus of the uterus, always determining that the uterus was firmly contracted, and the tumor globular.

With reference to traction producing inversion of the uterus, he had never seen any indication in that direction from the amount which he had employed, which had always been very moderate.

Dr. Putnam-Jacobi threw out a theoretical suggestion which might favor Crede's method. Up to the time the uterus is expected to contract and expel its contents the circulation has been predominantly venous; but as the moment approaches when the contractility of the organ will begin, it becomes extremely desirable to have the arterial instead of the venous circulation preponderate, and in the natural order of events the venous blood begins to be cut off by the formation of thrombi at the margin of the placenta. The question had often occurred to her whether or not defective contractility on the part of the uterus might not be due to abnormal persistence of the venous circulation due to defective formation of thrombi. Crede's method further diminishes the quantity of venous blood, favors the formation of thrombi, and continues a physiological process already begun.

Dr. P. F. Mundé said that he had practised Crede's method for a number of years, and for a time was perfectly satisfied with it. Still, there were times—perhaps, he was in too much of a hurry, a little too active in expressing the placenta—when the placenta could not be expressed without inflicting too much suffering upon the woman, and too much pressure upon the uterus.

The method of procedure, however, which had given him the greatest satisfaction, and which he recommended, was, as soon as the head of the child was expelled, to make steady, gentle manipulation and friction of the fundus, and follow it up until the uterus has diminished in size, so that it reaches only about half-way between the umbilicus and the symphysis pubis, and when no higher than that and the organ has a globular outline, one might be sure that the placenta was no longer within the uterine cavity. It may, however, be in the cervical cavity, or partly in the cervix and partly in the vagina, and in such cases Crede's method would often not effect its removal. Then by the introduction of one or two fingers, or even of the whole hand, either of which he regarded as exerting no deleterious influence whatever, the afterbirth could be readily removed.

The point he wished to make was, that Crede's method was excellent if followed to the letter. The method begins to produce expulsion of the placenta by first producing contraction of the uterus, which brings about loosening of the placental attachment, but not until detachment of the placenta has taken place should expression be made.

Dr. Mundé then referred to a case of adherent placenta, also to a case of encysted placenta, in which Crede's method could not have been of any avail.

He made it a rule to examine the afterbirth in every case, and if it was incomplete he invariably introduced his hand into the uterine cavity at once and removed whatever was left. To leave such cases to nature he regarded as criminal. He did not accept the plan at all of allowing the placenta to remain and come away when it gets ready.

Dr. J. H. Fruitnight regarded Crede's method as a good one to practise in most cases; but probably there were some in which it would prove of no avail. He did not favor the let-alone policy, but thought that, inasmuch as the placenta had completed its function, it should be removed.

Dr. Isaac E. Taylor thought more harm than good was done by interfering with nature's method of delivering the placenta. During fifty years he had not introduced his hand into the uterus, for the purpose of removing the placenta, more than four or five times, nor had he made traction upon the cord for that purpose. Indeed he knew of no authority for making traction upon the cord for the purpose of delivering the placenta. But if the cord was taken hold of with the fingers close to the vulva, and slight traction made, it would be easy, if the uterus was contracted, to determine where the placenta was attached; if anteriorly, lift upward with the cord, and if posteriorly, separate the thighs of the woman and push downward, and the gentle traction with this manipulation would cause the prompt delivery of the placenta, and it should not be expressed. He disapproved strongly of introducing the hand into the uterus at once after the delivery of the child, for the purpose of removing the placenta.

Although Crede's method might come in as an adjunct, he thought it better to allow nature to do her own work, which would not be attended by harm if delayed for an hour or even two hours.

Dr. E. D. Ramsdell had been obliged to peel the placenta off in only two or three cases out of 743 cases of confinement which he had attended in private practice. He had had one death, which he believed to be due chiefly to the fact that the nurse, who regarded herself as extremely intelligent, gave, unknown to him, vaginal injections every hour for four days, and the woman died of peritonitis. He once had a case and waited forty-eight hours for the delivery of the afterbirth. He then proceeded to deliver it, found hour-glass contraction to be the cause of the retention; septicæmia followed and the woman died. He then began to apply the method of making gentle traction on the cord, not too much, moderate, with moderate but firm pressure over the region of attachment of the placenta, and had, on an average, removed the afterbirth within fifteen or twenty minutes after delivery of the child.

Dr. E. H. M. Sell did not treat all cases in exactly the same way, and while Crede's method might be excellent, modification of it, or other methods, might be best adapted to certain cases. During a practice of eighteen years he had introduced his hand into the uterus only once, and then in a case of monstrosity with adherent placenta.

Dr. Garrigues, in closing the discussion, said all would agree concerning the desirability of conforming as much as possible to the physiological processes of nature, and the diversity of opinion was only with reference to how nature's method could be nearest approached. There certainly was a difference between traction on the cord and manipulation of the uterus through the abdominal wall. He believed it best not to touch the cord at all, but try first to determine whether or not the afterbirth would come away as the result of gentle pressure. With reference to inversion of the uterus, he thought traction on the cord was one of the recognized causes of the accident.

With regard to Dr. Mundé's way of practising Crede's method, he thought it was rather a modification than the real method, because Crede contemplated expressing the

placenta from the fundus of a contracted uterus, not allowing it to stop until expelled from the vagina, and in Dr. Garrigues' cases it had nearly always been thrown completely into the bed. If the placenta was left until it entered the cervical cavity surely Crede's method could not remove it. It was quite another thing to make pressure while the afterbirth was within the body of the uterus. Dr. Garrigues was unable to see how the location of the attachment of the placenta could be determined without introducing the hand into the cavity of the uterus. He agreed with Dr. Taylor entirely, that it was rash to introduce the hand into the uterus within half an hour after delivery of the child. While in his cases the average time was perhaps five minutes before the placenta was expelled, yet if it did not come away within that time, he would wait, if needs be, an hour or even more, but he would not allow it to remain and decompose.

The Academy then adjourned.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, March 12, 1884.

GEORGE F. SHRADY, M.D., PRESIDENT, IN THE CHAIR.

DR. T. MITCHELL PRUDDEN, Chairman of the Committee on Microscopy, made the following report on the specimen presented by Dr. Wyeth at the last stated meeting as one of

TUBERCULOSIS OF THE TESTICLE.

"The specimen shows much dense connective-tissue, diffusely and sparsely infiltrated in places with small spheroidal cells; in other parts, presenting larger and smaller circumscribed collections of similar cells. In a few places were circumscribed areas of cheesy degeneration. This is all the committee is able to report definitely, since on account of the imperfect preservation of the organ, the softer parts were almost entirely disintegrated. The microscopical examination, therefore, neither confirms nor speaks against the anatomical diagnosis of tuberculosis of the testicle, under which the specimen was presented."

Dr. Prudden also presented on behalf of a candidate a specimen of *hydatids of the liver*.

DR. R. W. AMIDON presented on behalf of a candidate specimens of *nasal polypi*.

MALFORMATION OF THE HEART—PATENCY OF FORAMEN OVALE AND DUCTUS ARTERIOSUS—STENOSIS OF THE AORTA—HYPERTROPHY OF BOTH VENTRICLES.

DR. L. EMMETT HOLT presented a heart showing the above lesions, taken from a child which died at the age of four months from capillary bronchitis of four days' duration. The lungs showed the usual lesions of that disease. The heart weighed two and a half ounces, which was nearly three times the usual weight at that age. The walls of the left ventricle were considerably hypertrophied, and those of the right were about the same thickness. The opening of the ductus arteriosus was equal in size to the subclavian artery. Just on the cardiac side of where this opened into the aorta, and beyond the origin of the great vessels, the aorta was constricted so as to diminish its calibre at least one-third. The valves were all normal. There was no marked hypertrophy of the auricles, and no history of cyanosis. The opening of the foramen ovale admitted an ordinary lead-pencil easily, but was valvular in character, and probably did not allow any considerable mingling of the blood-currents through it.

The hypertrophy of the left ventricle seemed plainly due to the contraction of the aorta. The cause of the hypertrophy of the right ventricle was not quite so clear, but appeared to depend upon the same lesion. As the obstruction, without doubt, had existed at the time of birth, the right ventricle had continued to do a part of the work of the systemic circulation, supplementing that of the left ventricle. Both together were able to compensate for the lesion and to keep the arteries filled.

These conditions—open foramen ovale and ductus arteriosus and hypertrophy of the right ventricle—were very common as associated lesions of pulmonary obstruction. Dr. Holt had never seen them recorded as depending upon aortic stenosis. Another point of interest in the case was the absence of cyanosis.

So far as it bore upon the subject at all, this case went to confirm the view that this symptom did not depend upon admixture of the arterial and venous blood. Considerable admixture certainly took place through the ductus arteriosus, and possibly some through the foramen ovale. He had seen a case recorded in which there was only a single ventricle, the aorta and pulmonary both opening out of it, and yet no cyanosis was present.

Dr. Holt thought it pretty clearly established that we were not to expect cyanosis in malformations of the heart unless marked pulmonary stenosis existed. But even this condition might be present, and yet be so compensated for that the symptom would be wanting.

Correspondence.

OUR LONDON LETTER.

(From our Special Correspondent.)

COMPULSORY EDUCATION AND ITS DANGERS—LONDON CONSULTANTS AND THEIR MODES OF PRACTICE—STUDENTS' NEW TEXT-BOOKS.

LONDON, March 15, 1884.

COMPULSORY education may have its benefits, but from an hygienic point of view it has its drawbacks. Several children are alleged to have died within the last few months from the pressure of overwork in board schools. It appears that children of tender years are not only kept at school for a good many hours daily, but are forced to do lessons at home also. Is it any wonder that the physical system should revolt? If we do not take care we shall have a nation of myopics, like the Germans. The lighting and ventilation of many schools are doubtless susceptible of improvement.

Home consulting practice in London is almost invariably conducted in the morning; the afternoon is devoted to hospital work and the visiting of private patients; societies occupy several evenings a week for those who choose to go. A busy physician begins his day's work at or even before 9 A.M. in his own consulting-room, and goes on till 1 P.M. or a little after. The stream of patients then flags, the doctor partakes of a scanty lunch, or perhaps none, and drives off in his carriage. Morning practice is thoroughly understood among good-class patients, and scarcely any would dream of calling on any of our leading consultants in the afternoon, or at any rate later than 2 o'clock. Some little time ago a patient went to consult a well-known London physician and arrived at his house at 1 P.M. She met him just coming out to his carriage, and he actually asked "what she meant by coming to consult him at that hour." The patient, a new one, explained that she did not know, but the doctor strode off and rode off in his carriage to his hospital. The patient did not pay this physician a second visit, and I may remark that this is not a specimen of West End manners, as the busiest practitioner who knew his manners would scarcely treat a patient thus.

Patients usually wait in the physician's dining-room and are beckoned in in turn by the man-servant. Sometimes a judicious "tip" to the servant persuades that functionary to let a patient wait in the hall and thus slip into the consulting-room without having to wait his turn in the waiting-room. Those doctors who see a few patients gratis do not always let them have their fair turn, but keep them waiting while more profitable ones are

being attended to. One physician has an ivory number given to each patient as they come, and thus all mistakes in rotation are avoided. One titled surgeon gives his patients a card with a number on, and on their next visit demands their number. One patient who consulted him gave his name on the second visit, but was told, "I want your number—not your name." I do not know whether the patient went again, but I do know that he came away and complained that he was treated like a hospital patient.

The new series of text-books for students commenced last autumn by Messrs. Cassell & Co. is already a great success and promises to be a greater. Messrs. Cassell have long been known as one of the largest and most enterprising firm of publishers in London, but this is their first venture in medical literature. The series is said to be edited by a rising West-end specialist. The sale has been very large. "Klein's Histology" and "Pepper's Surgical Pathology" may be mentioned as two of the most popular. In the former work the student now gets for six shillings a treatise on histology as good as the section devoted to that subject in "Quain's Anatomy." As the latter work is eighteen shillings for each volume it is evident that, notwithstanding each volume of Quain is sold separately, Klein is likely to take the wind out of its sails. Pepper is similarly likely to supersede Billroth and is quite up to date.

THE REASONS FOR ORGANIZING A NEW STATE ASSOCIATION NOT GOOD ONES.

To the Editor of The Medical Record.

SIR: In the *Ephemeris* for March, 1884, on pages 474 and 475, occurs the following passage:

"One of the chief reasons for organizing a new State society at this time is to be found in the fact that a large number of the county societies are in contempt of the old State society by not having made their by-laws to conform to those of the State society in the matter of the New Code, and some of these have notified the State society that they would not adopt the new by-law. Under these circumstances the only logical and proper course for the State society is to apply to the Legislature for a law suspending the corporate rights of all such county societies. Such a law can be easily obtained, and probably will be; and this will sever the connection of such county societies from the State society, and, in fact, leave them without legal status of any kind, unless it dragoons them into compliance with the new by-law."

It strikes me that the author of the above paragraph labors under a huge misconception of the purposes of the State society. So far from the obtaining of such a law being a *probability*, I believe it would be an utter impossibility to induce the State society to think of asking the Legislature for any such enactment.

The State society has no authority to compel a county society to *adopt* a by-law. It can simply refuse its sanction to what it deems an objectionable by-law, and no by-law that is refused this sanction can be enforced. So that if county societies which have made the Code of Ethics of the American Medical Society a by-law, and still adhere to that code as a by-law, should expel members for consulting with legally qualified practitioners with whom that code forbids consultation, the courts of law would undoubtedly reinstate such expelled members on the ground that their expulsion was illegal because effected under a by-law not in harmony with the by-laws of The Medical Society of the State of New York.

On the other hand, for my own part I can see no objection to the adoption, by all county societies which may decide to do so, of a resolution setting forth their approval of the code of the American Medical Association, if such resolution will enable them, as I suppose it would, to retain or secure the right to send delegates to that body, provided that no attempt is made to give such resolution the force of a by-law.

Very probably the misconception of the *Ephemeris*, before alluded to, arose from a perverted view of the feelings of the supporters of the New Code with reference to consultations. We believe that there are a considerable number of legally qualified practitioners who are excluded from consultations by the construction placed upon the Code of the American Medical Association, who are, nevertheless, possessed of sufficient intelligence, education, experience, and skill to render consultation with them advantageous in some cases, as well to medical science as to the patient for whom the consultation is held. We believe that no by-law can be so framed as to define the class of practitioners alluded to so as to include all the desirable ones and exclude all the undesirable ones, or that a by-law can so take cognizance of circumstances as to say in what cases a medical man should, and in what cases he should not hold consultations with such practitioners, and so we prefer that every physician should have the liberty of judging for himself when such a consultation is advisable. We disclaim any desire to force consultations on any unwilling member of our profession. We are content that we have secured such action in the State society as will prevent county societies from disciplining members for using their private judgment in the matter of consultations.

Wm. Manlius Smith, M.D.,
Sec. Med. Soc. State of New York.

Syracuse, N. Y.

THE USE OF THE MENTHOL SPRAY IN NEURALGIA.

To the Editor of The Medical Record.

SIR: Of late so much has been written concerning the external use of menthol, both in solution and as a pencil or cone, that it may seem superfluous to call attention to its efficacy when applied in the form of a spray.

Nevertheless I venture to suggest that as a spray the drug will most thoroughly and rapidly relieve the pains of intercostal neuralgia, spinal irritation, etc.

It has been my habit to use a saturated alcoholic solution of menthol crystals, to which a little sulphuric ether had been added, in an ordinary hand-spray. As a rule, the affected parts need not be sprayed more than once a day. Of twenty cases treated in this way all but two were promptly relieved, and in several instances the beneficial effects were permanent. Respectfully,

C. M. Cauldwell, M.D.

200 West Fifty-second Street.

THE INFLUENCE OF FRENCH MEDICAL JOURNALS—A VOICE FROM THE "RED-SKIN" REGION.

To the Editor of The Medical Record.

DEAR DOCTOR: In The Record for March 22d I notice a paragraph concerning *Le Moniteur de la Policlinique*. I regret exceedingly that any article of mine which my esteemed friend, the editor of the *Philadelphia Medical Times*, thought fit to publish, should have given the irritable editor of the *Moniteur* an occasion to attack medical journalism in the United States! The article on epilepsy referred to by this belligerent Frenchman was written at a lonely frontier post where, thank goodness, French medical journals are seldom, if ever, received.

Certainly, until to-day, I never heard of this French editor or of *Le Moniteur de la Policlinique*, and I am sure I have never seen any translations, if such exist, of his valuable writings. I do not know what has been written against The Record by this same editor, but I fancy that, like a "luminous" American medical rival, it will *not* "*push* The Record *very hard*," should he continue his pusillanimous attacks. It is not necessary to congratulate the medical profession of this country that our medical journals compare favorably with those of *any* other country, and the ability of American medical prac-

titioner is, to say the least, *quite equal* to that of his confrère in *France!*

Hoping that you will pardon me for taking this much of your valuable space, and with best wishes for THE RECORD and its worthy editor, I am,

Very sincerely yours,

W. THORNTON PARKER, M.D. (Munich).

Acting Assistant Surgeon, U. S. Army.

FORT UNION, NEW MEXICO,
March 30, 1884.

SOME POINTS IN THE TREATMENT OF DIPHTHERIA.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR: Much may be forgiven to the man to whom the flush of victory has brought perversion of judgment, but the local treatment with nitrate of silver, advocated by Dr. T. J. Hutton, in his astonishing article on diphtheria in your last issue, seems monstrous in the extreme. "Twenty grains of lunar caustic," says he, "in one drachm of water, is applied thoroughly every hour or two to the affected parts, and continued so long as there is formation of membrane, whether two days or seven." Should one application of so powerful a solution have arrested the development of the membrane he seeks to destroy, it would be worse than folly to repeat it. If it has not destroyed it, he is in no position to determine at the end of an hour or two, as the eschar left by the treatment obscures all the processes beneath it. Let us suppose he has used it for seven days, as he would lead us to conclude he sometimes did, here would be eighty-four applications at the least, of a painful, irritant character, the eschar sometimes sloughing and leaving a raw surface, which in its turn is cauterized with additional torment. Could anything be more deplorable? What is gained? Ought not the lesson to have been long before inculcated in such a case that the caustic was hindering the object of its use? But at the same time he is having his patient gargle his throat "*every fifteen minutes*" with a solution of "one ounce and a half of chlorate of potassa dissolved in eight ounces of water!" Such scouring and rinsing may be refreshing to the crisp throats of Minnesota children, in their atmosphere at a "temperature of 60° below zero," but here we could not get so much chlorate of potassium to dissolve in so little water, let alone using it. It would seem impossible that, in the proportions of the salt to the water, as given above, a saturated solution could have been made without heating the water, and keeping it so, as, ordinarily, a saturated solution is made with one part to twenty. Now a patient whose throat is being "cauterized thoroughly every hour or two," and who at the same time is gargling it every fifteen minutes, "whether for two days or seven," has no time for even "common liquid food," let alone sleep, and that he has the courage to survive the ordeal and enter upon the second stage of the disease and its treatment speaks well of the young citizen of the great Northwest. They whom we look upon as authorities have only voiced the private experience of thousands of physicians in every country, and almost uniformly discountenance the use of nitrate of silver as a cauterizing agent in diphtheria. Where it is at all commended, as by Bouchut, its employment is limited to the tonsil at the *début* of the disease; a thing not used in his own practice, I infer, since he adds, "for the last ten years I have employed no other means than pharyngeal douches of coal-tar saponine, which prevent the production of septicæmia."[1] Dr. Jenner recommends one single but efficicent application of a strong solution of the nitrate of silver, which may stay the spread of the exudative inflammation, but on the whole prefers the application of the diluted hydrochloric acid. Squire, in "Reynolds' System of Medicine," advocates the local use of a strong solution of nitrate of silver, but at the same time urges the attendant to be unremitting in his use of constitutional medicine.

Against the use of this cauterizing agent is arranged a powerful host of authorities, as Stillé, Flint, Aitken, Bartholow, Greenhow, Sanderson, Phillips, Mackenzie, and not a month in the year but you may find in almost any of the larger medical journals detailed accounts of the successful application of milder means. The remarkable experience of Dr. Curtis with the decoction of juglans nigra,[2] exhibited in thirty cases of all degrees of severity without the loss of a patient; the sixty-four successful cases of Dr. Macdonald treated with pot. chloras and tinct. fer. mur. without other means,[3] would shame the nitrate of silver in the most accomplished hands.

When one recalls the fact that inhalations of lime vapor, the spray of lime-water, lactic acid, solutions of chlorate of potash, and muriate of iron in glycerine, mild, certain, and easily applicable, fulfil all the indications claimed for nitrate of silver—an agent so corrosive, so cruel, and over and over again proved so useless—it is difficult not to characterize its repeated use as inexcusable. We all know, at least from the older writers, how frequently and inevitably it was used in the past, not long gone, either, and how the little victim fought against it, and suffered from it additional pangs, while the insidious membrane grew beneath the eschar, and death pertinaciously followed in the vast majority of cases. Six fatal cases thus treated, by physicians who clung to their traditions, at different times have come under my notice. The base of each tongue was parched and the infant throats seared as with hot iron, deglutition had been impossible for some time before death, and I thought it attributable to the frequent cauterization rather than to paralysis. In spite of the local treatment the diphtheritic membrane had invaded the nares in all these cases.

Now, as to Dr. Hutton's theory of the cause of diphtheria being due to "ochlesis, or crowd-poison," it must be remembered that the disease, though probably known to the ancient Greek physicians, has such a distinct history of its progress in modern times through Southern Europe in the middle of the sixteenth century, to England and finally to America in the latter part of the eighteenth century, where it was described by Dr. Samuel Bard, of New York, and in 1789 by Dr. James Stratton, President of the New York Medical Society, in a dissertation before that body, that we are led to the conviction that it propagates itself by germs, as does small-pox, or scarlatina. That we are not always able to show a connection between a present and a previous case of diphtheria, considering the limitations of our knowledge, is not surprising. "Prospectively," says Simon, "we are able to predict the results of certain exposures to contagion as definitely as the results of any chemical experiment; but retrospectively we have not the same sort of certainty, for we cannot always trace the parentage of a given case of small-pox, or measles." Upon which Aitken aptly continues: "The same may be said of animals; given any individual calf, cat, dog, or child, we cannot always trace its parentage." Typhus fever has been mainly looked upon more than any other as the disease of crowds, but the evidence, even here, is negative, and after the investigation by Dr. Parkes of the facts of the epidemic of that fever in the Egyptian ship "Scheah Gehald,"[3] one must indeed be credulous to believe that succession is not needed to propagate, even here. The fact is, the miasm of infectious diseases hides even in light, before the most penetrating eye of the microscopist, but retains its vitality for years until favoring circumstances develop its malignant energies and disseminate it anew. And until the germ arrive the conditions favorable to its development are inoperative, though they should occur again and again. As, for in-

[1] Med. News and Library, November, 1874, from Gazette des Hôpitaux, No. 63, 1874

[1] Boston Med. and Surgical Journal, March 10, 1881.
[2] Med. Times and Gazette, October 6, 1877.
[3] Statistical, Sanitary, and Med. Rep. of Army Med. Dept. for 1860, p. 359.

stance, it could have been no uncommon thing in the bleak winter climate of Minnesota—that far frontier, where, as Tourgenieff would say, the washerwomen hang their clothes on the rim of the sky—for many persons to crowd themselves for days in narrow rooms against the eager, nipping air. And how many winters must this have occurred, in how many hundreds of instances, without diphtheria, until these epidemics Dr. Hutton describes!

Hildenbrand was infected by a cloak, which, after exposure to scarlatina, had been put aside for eighteen months.[1] The poison of small-pox is so tenacious of vitality that, if protected from air, it remains active for an unknown number of years.[2] Dr. S. B. Morrison relates that his own observation had taught him that the diphtheritic poison can remain quiescent for years and then break out suddenly.[3] Cases are numerous of the poison of diphtheria being carried long distances in clothing packed in trunks and communicating the disease sometimes a thousand miles from its first inception. And, upon the other hand, Dr. Hughes [4] has recorded a case where a servant was taken ill with diphtheria twenty-two days after its occurrence in a house where she had been residing. Squire gives an account of an infant which took the disease twenty-one days after exposure in a house that had been cleansed ten days before on the complete recovery of a servant affected there with diphtheria. But why multiply instances? Diphtheria is perhaps absent in no State of the Union at any season of the year. The average number of deaths from it in New Jersey, according to the Board of Health Reports, is not less than one thousand annually. In the large cities throughout the nation it is never entirely absent. With so many centres of infection the chances of its being borne through fomites, or in these days of rapid transit by some victim in whom the poison was late in developing after exposure to infection, to even the frontiers of Minnesota, is not to be questioned. That the crowding of many persons in one small room furnished the conditions favorable to the development of the disease goes also without questioning.

GEO. T. WELCH, M.D.

KEYPORT, N. J., April 4, 1884.

THE REASONS WHY WOMEN CANNOT BE MEMBERS OF THE PHILADELPHIA COUNTY MEDICAL SOCIETY.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR: Your reference to the action of the Philadelphia County Medical Society on Wednesday last is incorrect. The amendment consisted in adding the word "male" to the preamble, making it then read:

"The Society shall consist of regular *male* physicians, residents of the County of Philadelphia, subject to the following provisions:

"Section 1. To entitle a person to membership in this Society, *he* must be a citizen of the County of Philadelphia, a graduate of at least one year's standing of a respectable medical school, and of good moral and professional reputation."

A large majority, opposed to female members, declined to support the amendment before the vote was taken, being satisfied that the personal pronoun *he* was sufficiently explicit, and amendments generally are not favored by us. The decisive rejection of the female candidate voted for later, clearly indicated the views of our members then, as it has done at every election heretofore.

The Society does not wish its usefulness curtailed or its life endangered by driving out the real workers through the introduction of women. Our proceedings are largely clinical, and although several of the supporters of female candidates have publicly stated that women would set aside their modesty and partake in common of the bill of fare provided, there are enough *gentlemen* left to decline mixed audiences, believing that what before men would be proper and legitimate, would before women be improper and indecent, and that one who would blush to expose his mother or sister, his wife or his daughter to clinical exhibitions, correct and dignified in themselves, cannot set aside his respect for women, be they professional or be they brazen.

There are other and special objections to the introduction of women as members, which pertain to this Society particularly, and which, not being of general interest, are not here noted. The real aim of the agitators in the question with this Society is well known, the pretensions of philanthropy and respect for females as practitioners, which they urge so persistently, are homœopathic in their potency.

WM. R. D. BLACKWOOD, M.D.,
Chairman Committee of Publication.

APRIL 5, 1884.

[1] Reynolds' System of Medicine, vol. i., p. 84.
[2] Aitken's Science and Practice of Medicine, vol. i., p. 390.
[3] MEDICAL RECORD, September 22, 1883.
[4] British Medical Journal, 1859, p. 80.

Army and Navy News.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, United States Army, from March 30, 1884, to April 5, 1884.

WOODHULL, ALFRED A., Major and Surgeon. Granted leave of absence for twenty-two days, to take effect about April 6, 1884. S. O. 72, par. 13, Adjutant General's Office, March 28, 1884.

WHITE, ROBERT H., Captain and Assistant Surgeon. To be relieved from duty at United States Military Academy, West Point, N. Y., August 28, 1884. S. O. 74, par. 7, Adjutant General's Office, March 31, 1884.

MEARNS, EDGAR A., First Lieutenant and Assistant Surgeon. Assigned to duty at Fort Verde, A. T. S. O. 22, par. 1, Headquarters Department of Arizona, March 19, 1884.

Official List of Changes of Stations and Duties of Medical Officers of the United States Marine-Hospital Service. January 1, 1884 to March 31, 1884.

FESSENDEN, C. S. D., Surgeon. To proceed to Cairo, Ill., and Memphis, Tenn., as inspector. March 5, 1884.

PURVIANCE, GEORGE, Surgeon. Granted leave of absence for thirty days. February 16, 1884.

SMITH, HENRY, Surgeon. To rejoin his station at Norfolk, Va. March 7, 1884.

IRWIN, FAIRFAX, Passed Assistant Surgeon. Relieved from duty at Norfolk, Va.; to assume charge of Cape Charles Quarantine Station. March 7, 1884.

CARMICHAEL, D. A., Assistant Surgeon. To report to Surgeon Purviance for examination for promotion. March 5, 1884.

ARMSTRONG, S. T., Assistant Surgeon. To report to Surgeon Fessenden for examination for promotion. March 5, 1884.

BENNETT, P. H., Assistant Surgeon. Leave of absence extended ten days. January 18, 1884.

AMES, R. P. M., Assistant Surgeon. Detailed for temporary duty on relief boat—Ohio River flood sufferers. February 16, and March 1, 1884.

DEVAN, S. C., Assistant Surgeon. Upon expiration of leave of absence, to proceed to St. Louis, Mo., for temporary duty. February 6, 1884.

KALLOCH, P. C., Assistant Surgeon. To proceed to Charleston, S. C., for temporary duty. February 1, 1884.

BEVAN, A. D., Assistant Surgeon. Granted leave of absence for seven days. March 13, 1884.

WASDIN, EUGENE, Assistant Surgeon. Granted leave of absence for fifteen days. March 4, 1884.

BATTLE, K. P., Assistant Surgeon. To proceed to New York, N. Y., for temporary duty. February 4, 1884.

COOKE, H. P., Passed Assistant Surgeon. Resignation accepted by the Secretary of the Treasury, to take effect February 5, 1884. January 31, 1884.

BATTLE, KEMP P., M.D., of North Carolina, having passed the examination required by the Regulations, was appointed an Assistant Surgeon by the Secretary of the Treasury, February 2, 1884.

CARMICHAEL, D. A., Passed Assistant Surgeon. Promoted and appointed Passed Assistant Surgeon, by the Secretary of the Treasury, from March 1, 1884. March 18, 1884.

ARMSTRONG, S. T., Passed Assistant Surgeon. Promoted and appointed Passed Assistant Surgeon, by the Secretary of the Treasury, from April 1, 1884. March 28, 1884.

Official List of Changes in the Medical Corps of the Navy, during the week ending April 5, 1884.

WALES, P. S., Medical Director. Granted one year's leave of absence from March 28th, with permission to leave United States.

BATES, N. L., Medical Inspector. Ordered to Washington to attend sick officers.

BRADLEY, M., Medical Inspector. Ordered to continue duty at League Island Navy Yard.

WHITAKER, H. W., Assistant Surgeon. Ordered to Naval Rendezvous at Philadelphia, Pa.

GUNNELL, F. M., Surgeon-General. Appointed Chief of Bureau of Medicine and Surgery, and Surgeon-General of the Navy, with the relative rank of Commodore, from March 27th.

RUSH, C. W., Passed Assistant Surgeon. Ordered to Naval Academy.

MCMURTRIE, D., Surgeon. Detached from Naval Rendezvous, Philadelphia, and to await orders for duty at Navy Yard, Washington, D. C.

NELSON, H. C., Medical Inspector. Ordered before Retiring Board.

GORGAS, A. C., Medical Inspector. To be Medical Director from the 4th March on the Active List.

Medical Items.

CONTAGIOUS DISEASES—WEEKLY STATEMENT.—Report of cases and deaths from contagious diseases reported to the Sanitary Bureau, Health Department, for the week ending April 5, 1884:

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Cases.								
March 29, 1884.....	7	6	88	9	71	32	0	0
April 5, 1884.....	5	6	84	7	70	40	1[1]	0
Deaths.								
March 29, 1884.....	3	3	11	8	11	17	0	0
April 5, 1884.....	3	0	16	6	11	14	0	0

[1] This case of small-pox was sent from Brooklyn to Castle Garden.

HOW TO PRACTISE MEDICINE IN MEXICO.—A correspondent of the *Therapeutic Gazette* at La Paz, writes: "The medical faculty of this place consists of two Mexican physicians, graduates of the College of Guadalajara, and one American. They all have excellent pharmacies connected with their practices. To any who may desire to reside and practise in Mexico, it may be well to state that physicians are not permitted to practise in any portion of Mexico without a certificate of proficiency from the medical examining board of either the College of Guadalajara or that of the city of Mexico, a law which renders the country singularly free from quacks. A small, feeble weekly is published here by the 'Socieda de Medecina de Guadalajara.'"

THE USE OF DAMIANA IN MEXICO.—Damiana is in universal use on the western coast of Mexico, usually in the form of a hot infusion, a cordial, or as a domestic tincture. In its weaker forms it is esteemed as a general tonic and sexual power preservative, while the stronger preparations are held to be (and probably with some credit) powerfully stimulant to both the male and female sexual organs. It is undoubtedly an aphrodisiac of considerable power, somewhat tonic, slightly cathartic, and apparently having some hepatic action. The natives and midwives, and women of loose morals attribute emmenagogic powers to it. Like at home, here abroad the druggists have patented what they call "Damiana Fort," the same being an agreeable cordial prepared from the herb. It is extensively sold on this coast, and as it may interest some of the medical fraternity to know what merits are claimed for "damiana," I append a free translation of a wrapper, it so perfectly represents the popular idea of the efficacy of "Damiana Fort:" "Taken before meals it gives an appetite, and prevents all indigestion if taken after meals. It exercises a wonderful influence over the nervous system, and is an efficacious aphrodisiac. The frequent cases of longevity observed in this territory, and the power possessed by sexagenarians of obtaining offspring, as though they were still young, are due to the use of damiana."—Correspondence of *Therapeutic Gazette.*

THE POTASSIO-MERCURIC IODIDE TEST FOR ALBUMEN.—Dr. George W. Dillon, of this city, writes: "The editorial in your issue of THE MEDICAL RECORD, February 23, 1884, on 'The New Urinary Tests,' contains the statement that Tauret's test—potassio-mercuric iodide—has no special advantage over the other tests for albumen. From an extensive experience with it, it has seemed to me the best known, especially by the general practitioner. My reasons are stated in detail in an article published elsewhere.

"May I also call your attention to a fact which I have never known noticed except by myself, that chromic acid is a delicate albumen reagent, ranking among the very best?"

ELECTRICITY FOR THE RELIEF OF TINNITUS.—Dr. H. L. Morse, writing to the *Boston Medical and Surgical Journal* concerning the treatment of ear diseases in Vienna, says: "Another method employed to mitigate tinnitus, which is often so annoying, is the use of electricity. The constant current is at first tried, and if this fails to accomplish the desired end the induced current is used. The anode (copper pole) is placed upon the tragus, and the kathode (zinc pole) is brought in contact with some other part of the body, usually the side of the neck or the hand. A very weak current is at first applied, and its strength is gradually increased, until the patient feels a sharp stabbing pain in the ear, or has severe tinnitus; the strength of the current is then gradually diminished, until it is once more at zero, before removing the poles. The improvement due to electricity is sometimes permanent—often only temporary—and in some cases it has no effect upon the tinnitus. But even in these last cases it often relieves the dull, stupid feeling in the head, loss of memory, etc., complained of by these patients; and in this way greatly improves their condition. Electricity is also very often used by Urbantschitsch for otalgia, and gives very good, and in many cases permanent, results."

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Original Articles.

THE RATIONAL METHOD OF TEACHING ANATOMY.[1]

BY FRANK BAKER, M.D.,

PROFESSOR OF ANATOMY, UNIVERSITY OF GEORGETOWN, D. C.

WHEN the renowned traveller and surgeon, Lemuel Gulliver, visited the Imperial Academy of Lagado, he found in vogue there a peculiar method of teaching science.

"The proposition and the demonstration were fairly written on a thin wafer, with ink composed of a cephalic tincture. This the student was to swallow on a fasting stomach, and for three days following eat nothing but bread and water. As the water digested the tincture mounted to the brain, bearing the proposition along with it."

This has a grotesque resemblance to some methods used nearer home than Lagado; methods which are not always perfectly satisfactory, as was indeed the case with that of the Laputan Academy, for our amusing author continues:

"But the success hath not hitherto been answerable, partly by some error in the *quantum* or composition, and partly by the perverseness of the lads, to whom this bolus is so nauseous that they generally steal aside and discharge it upward before it can operate; neither have they been yet persuaded to use so long an abstinence as the prescription requires."

It is very often assumed by writers on natural science that here, at least, in the "sciences of observation" as it is the fashion to call these departments of human knowledge, we have got rid entirely of the Laputan method, and have succeeded in substituting a rational system of instruction founded upon observed facts. But it is not always safe to assume that we are rid of Thoth, Dagon, and the other gods of the Philistines. They have a wonderful faculty for reappearing, with their staring, fish-like eyes and putty faces, right in the midst of the sanctuary when we thought we had banished them forever.

Let us see what is meant by our pet phrase, "founded on observed facts." Many a homily have I read to medical students exhorting them to rely only upon what they can see and demonstrate, to test all anatomical knowledge by strict comparison with the cadaver: many another do I hope to address them also, for all agree that that method and no other is the safe one. But what do we mean by founding a *science*? Is it simply the gathering up of careful and laborious observations? Is it scientific knowledge to be aware that Herr Geistlos has counted under the microscope the exact number of villi in the human intestine, and found that they amount to 10,125,603, or that M. Poussière has, after laborious patience, succeeded in finding almost the exact area of the mucous surface of the human lung? Facts are not only stubborn things—they are exceedingly *dead* things if not warmed to life by the action of human thought. It is time to come to a certain understanding on this subject. The independent interest in the human body has been so great, and the necessities of the surgeon and physician have been such, that we have a vast accumulation of observed facts, vaster by far than in any equally limited biological field. How shall we deal with them?

It should be acknowledged that there is a certain hierarchy in the methods of science. At the very foot of the list I would put that arrangement of facts which simply states that certain phenomena coexist, that at one and the same time in the same individual certain appearances and attributes are present. This department of science is seen at once to be absolutely essential; the only danger is in resting there. In all the older and more highly developed sciences these outlying facts are merely the portals by which great and important truths are approached. No one thinks of arresting his study of geometry at the definitions. Why should the student of the human body be satisfied with descriptive anatomy?

Among the text-books for teaching anatomy by this method the well known work of Gray has for many years been the most extensively used in this country. To know one's Gray is equivalent, with the ordinary medical practitioner, to being a competent anatomist. There are some very good reasons for this. To enable one to operate on the human body with skill and precision, it is essential to be able to reproduce in imagination the entire anatomy of any given region with the structures in their normal relations. Such knowledge is gained not only by dissection but by the use of good pictorial illustrations. The anatomy required by the operating surgeon is in fact mainly a matter of eye-memory, the mind being much more tenacious of knowledge gained by this method than by any amount of merely didactic teaching, the language of the text-book, if not obscure, being merely explanatory. Now, Gray's first edition was in this respect not only a long way in advance of the works then extant, but remains to this day, as far as the plates are concerned, the most satisfactory treatise ever published in English for students' use. Dr. Carter, the author of these celebrated plates, combined qualities which are very rare. Not only an accomplished draughtsman, he was possessed of a certain skill in handling the salient points of an anatomical drawing. I need hardly point out that every anatomical draughtsman has a peculiar problem before him, as indeed has every artist who attempts to delineate objects as they actually are. In mere black and white it is impossible to represent an anatomical subject with perfect fidelity. Even a photograph does not do that. All the color and a portion of the details are suppressed because we cannot get the multifarious tones of light and shade as given in nature. There is, therefore, room for judgment as to exactly what shall be omitted. In this Dr. Carter surpasses those whose drawings are much more delicately and beautifully finished. He has also, by treating the topographical details of the body after the manner of a map-maker, imprinting the name of each structure on the structure itself, conferred an enormous benefit upon the student, which will be realized by those who have pored over the references by numbers and lines which are ordinarily used in other works.

The merit of Gray in this respect is very great. Indeed, I think I may say that if it had not been for this the book would have long ago been gathered to the dust of the second-hand bookstore; for the text has a peculiarly barren quality. The structures of the body are described minutely and at considerable length, with the dryest precision and mathematical exactness, no attempt being made to seize and set forth the salient and important points. Monotonous repetitions are frequent, and no at-

[1] Read before the Biological Society of Washington, D. C., November 30, 1883.

tempt is made to vary the tedium by illustration or comparison. There is, for example, a little piece of the little palate bone, situated deep in the back of the orbit and of no surgical importance. It has perhaps the dimensions of a cubic quarter inch. Its situation and irregular shape give it, however, five surfaces, and this fact allows full scope for the peculiar method of Gray, who writes nearly half a page upon this insignificant little nodule, describing each surface, with its direction and articulations, with a prolixity that is almost maddening. I have upon several occasions administered this bolus to students, and found the same results that Gulliver describes—"they generally steal aside and discharge it upward before it can operate." I believe it to be almost impossible to retain the matter in the memory as it is taught by Gray. It becomes simple when treated organically as part of the orbit. Then the whole mass of apparently disunited facts is supported and comprehended. We have not yet got much beyond the deep wisdom of Plato, who said: "A freeman ought to be a freeman in the acquisition of knowledge. Bodily exercise when compulsory does no harm, but knowledge that is acquired by compulsion has no hold on the mind."

Most students who commence the study of the human frame by means of descriptive anatomy alone, suffer a profound feeling of disappointment. They had expected to learn something of the mysteries of being, to have some corner of the shrouding veil of Isis uplifted, but they are put off with the husks of dimensions and relations of structures as shown in the cadaver, that is not deader than the method that describes it. It is notorious how quickly anatomical knowledge thus acquired is forgotten. Which one of the medical gentlemen present here to-night has found it possible to permanently remember correctly the branches of the internal maxillary artery? Which one can correctly bound the ventricles of the brain? Yet I venture to say that either of these series of facts learned by the natural method would never be forgotten. It is rather the *art* of anatomy you have learned, not the *science*. The geometry used by a practical mechanic in laying out his work is not *science*. He may be perfectly ignorant of the principles involved, and should a new case arise is helpless.

The great predominance given to surgery has hitherto overshadowed anatomical teaching and produced this result. But the increasing application of anatomy as an assistance in diagnosis must necessarily work a change, even were it not forced upon us by the general advance of biology. In such cases it is not sufficient to merely know the details of structures—it is required to understand their functional activities, the constant and incessant changes they undergo, the inherited characters and the possibilities of reversion, or of the persistence of fœtal characteristics.

Formerly the chair from which anatomy was taught was termed the "Institutes of Anatomy and Physiology." The vast extent of the subject occasioned by the advance of knowledge has made it impossible to teach the whole from a single chair. But by teaching it in this way there is to some extent a *suppressio veri*. The living body is in no respect exactly like the dead one, and it is impossible to separate structure and function except in a wholly imaginary way. Anatomy reduced to the absurdity of suppressing all mention of function and change becomes a species of stereography.

Undue authority given to a text-book destroys healthy independence of thought. Let us give to our science a higher character, and instead of remaining satisfied with the phenomena of coexistence, consider these as the ultimate results of a vast series of sequences. The human body is not x but fx, there being inseparably connected with it the wonderfully complex interacting forces which make it what it is, shaping it from moment to moment, slowly, but as surely as the tides alter the coast-lines of continents.

To apply this practically is not difficult. In the first place, the facts of anatomy should be constantly explained and illustrated by the functional activity of the structure. The variations in the shapes of bones, the varying characteristics of muscles, viscera, and all other parts, should be referred as far as possible to the immediately antecedent conditions. The twisted appearance of the humerus is due to the pull of its muscles, the obliquely spiral curve of the ribs a necessity of their use as lateral flanges for rhythmically expanding the thorax. An artery is not a mere abstraction whose relations are to be "committed to memory;" its situation depends upon its function and the necessity for its protection. Closely connected with this comes what is sometimes called "applied" anatomy, the application of the science to certain physiological and pathological conditions. The strongest parts of the bones, the direction in which muscular force acts, the external configurations which guide to important organs, the many weak points by which disease or injury may invade the body, are of the highest importance. While but little prominence is given to this subject in Gray—the only branch adequately treated being that which has immediate application to surgery—there are yet many works which more or less completely fulfil the necessary conditions. Among them are the excellent ones of Holden and of Humphry, various manuals of physical diagnosis, and the recent book of Prof. Harrison Allen, which is in this respect a very valuable compilation of facts.

The second method I would mention is wider-reaching and goes nearer to the real backbone of the subject. It is the orderly review of the successive modifications of structure which occur throughout the life of man. It is customary to call this embryology, but as this seems to limit the examination to pre-natal conditions, the term ontogeny, which the Germans have made for us, appears preferable. It is simply the previous method extended in time, and has this supreme and important advantage, which cannot be too highly prized by the teacher, that it proceeds from simple to complex. It is most surprising to me that this, the natural method of teaching the subject, should have been neglected for so long. Other departments of biology long ago reshaped their whole course by this means. But physicians have always looked with suspicion upon any innovations in the important branch which investigates the structure of the body. The story is as old as Herophilus, who was decried as an impious wretch because he dissected criminals; as Vesalius, who was railed at by all the physicians of Europe because he dared to say that Galen was mistaken; as Harvey, whose famous dictum, "*omne vivum ex ovo*," was considered as vile blasphemy by his associates.

You will perhaps say that embryology is already sufficiently taught in medical schools. It is taught, to be sure, but not as an organic and essential pre-requisite to the proper understanding of the structure of the body. It is usually turned over to the chair of Obstetrics and there treated very properly, but imperfectly, as relating to the phenomena of pregnancy and parturition. In our anatomical text-books a similar fault is found. The whole matter is detached, extracted as it were from the place where it properly belongs, and relegated to a distinct and separate section of the book, but slight reference being made to it elsewhere. It is usually hastily passed over by students as of no great importance. In the current edition of Gray, the development of the ovum and the description of the tissues of the body are placed in an introductory portion written by Dr. Holmes. The matter is not treated genetically, and students find very great difficulty in understanding it. This is not the case with the fine sections on embryology and general anatomy in Quain's well known work, which is the great rival of Gray in all English-speaking countries, and has well-nigh crowded out its opponent, except in the United States. Published under the auspices of the London University, and edited by a corps of gentlemen each of whom is a specialist in his own branch, it is far superior to Gray as a scientific treatise representing the latest results. Two

great faults obscure it. Its illustrations, though many and fine, do not equal the graphic seizure of details which characterizes the intelligent work of Dr. Carter, the artist who illustrated Gray. Again, the book being fashioned by so many different hands, has suffered in logical and orderly development. The department of embryology is relegated to the back of the book, and the account of the tissues precedes the second volume.

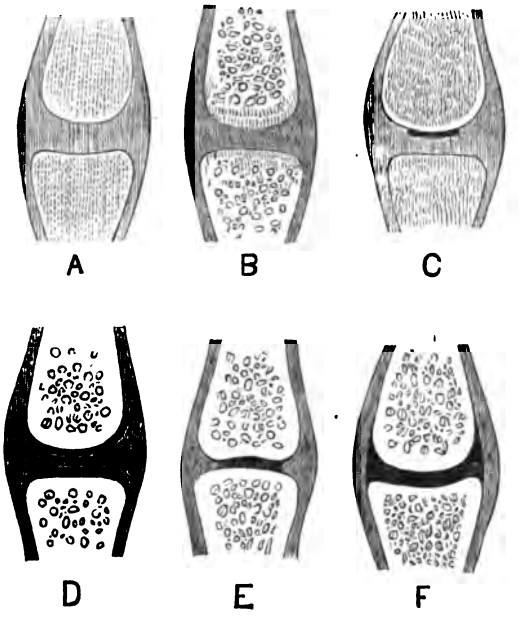
In other sciences the student is led along by easy steps from the simplest rudiments to the greatest complexity; it is only in anatomy that the strange system prevails of treating each part of a highly complex whole as if the student were already acquainted with every other part. As he usually commences at osteology, he receives no information as to the genesis of bone and its intimate structure and properties. What is still more astonishing, there is no comprehensive view of the subject, and the student is plunged into the description of the vertebræ without any idea of the general arrangement or characteristics of the skeleton. A short chapter, illustrated by full-length views of the entire skeleton taken from various points, would seem absolutely necessary; but you will look in vain for anything of that kind in our best-known manuals of anatomy.

I am aware that you will probably say that I overlook the fact that the subject must be treated systematically. But there is such a thing as carrying system too far. A dictionary is a model of system and admirable for use in its place; but he would be thought a fool who would attempt to master a language by committing it consecutively to memory, and we sympathize with the old lady who thought that the stories were mighty short and didn't seem to hang together well. Now, the arrangement of Gray is essentially that of a dictionary or cyclopædia. The known facts about a structure are given under the head of that structure with tolerable completeness, but the description is not an organic part of a symmetrically unfolding work, but a compendium arranged without reference to the gradual development of the subject or the mental needs of the learner.

I would, therefore, weave in the elements of embryology and histology in such a manner as to make them available for use to the best advantage in explaining adult structures. There should be a preliminary chapter on the development and growth of the body. Having carried the human egg as far as the laying down of the membranes, the genesis of the tissues should be considered, the characteristics of epithelium and the great connective tissue group. Reserving the more complex tissues until the organs which they form come up for consideration, cartilage and bone tissue would logically be taken up as the highest examples of the connective tissues. After describing osteogenesis the attention should be directed to the structure and characteristics of bone, then to the osseous system as a whole, finally to the separate bones.

The remainder of embryology and histology should be dispersed throughout the work. The subjects would be treated in an elementary manner, not intended to supersede elaborate treatises on the subject. Each description of an organ or class of organs should be prefaced by a short account of its development and intimate structure. This may be called the historical method as applied to anatomy, an advance from simple to complex. I will give you an instance of its application. The ordinary way of teaching the anatomy of the joints of the human body is artificial in the extreme. Galen classified and named them, and although with the insight of genius he really did seize upon some of the essential characters, the classification is, as far as the student can see, as arbitrary as that of the bones into long, short, and irregular. The names being Greek are particulary difficult for the learner. Unnecessary elaboration is also used. He is told that a schindylesis is a joint where a thin plate is received into a cleft or fissure, and that gomphosis is the insertion of a conical process into a socket, the only example being the teeth. Now schindylesis is only a variety of suture where three bones unite, and the teeth are not bones, so that their insertion is not an articulation at all. Let us look at the subject of joints from the side of development.

A limb- or body-segment is first composed of embryonic or indifferent tissue. In its axis this tissue differentiates into a cartilaginous rod which at certain points shows a solution of continuity. (See Fig. A.) Around the rod



and between the ends of its segments connective tissue is formed. That around the rod is termed the perichondrium; that between, which is of precisely the same nature, forms *ligaments* or straps uniting the applied ends. The fibrous tissue may be so scanty and the apposition of the ends so close as to make the two bones almost immovable with respect to each other; the joint is then called *synarthrodial*, of which the sutures of the skull are examples. It may be of considerable amount, allowing a slight and limited motion; the joint is then called *amphiarthrodial*, examples of this being seen in the vertebræ. (See Fig. B.) In case a greater amount of movement is advantageous, the amphiarthrodial joints sooner or later undergo a change in their interior. Certain of the connective-tissue cells become vacuolated, and these vacuoles or small cavities join together, making a larger cavity or cleft (see Fig. C), which is moistened with fluid derived from the cells. The fluid is called synovia, the cavity the synovial cavity. Joints of this kind are called *diarthrodial*. The interstitial fibrous tissue may not entirely disappear. Sometimes a synovial cavity is formed along the end surface of each segment, leaving an intervening disk of fibrous tissue which may become in part cartilaginous. This is termed an interarticular fibro-cartilage; example, lower-jaw joint. (See Fig. D.) The disk may become thinned and disappear at the centre, leaving a ring. (See Fig. E.) This occurs in the knee-joint. The complete disappearance is shown in Fig. F. The outside capsule may be variously thickened by bands and cords of connective tissue, all arising from the same original investing membrane continuous with the perichondrium, which, as the cartilage ossifies, becomes periosteum. These bands are the ligaments. If necessary, a further classification can now be made having for its principal basis the shapes of the articular surfaces.

I do not claim that any novel facts are presented here—it is merely that the old system teaches them in the wrong sequence. By this method the subject is simplified, the classification made intelligible, and all anomalies and peculiarities are explained. It gives a rational basis upon which to arrange the known facts relating to *any*

joint. The ligamentous system is shown in its proper relation as a dependence of the osseous. I have indeed found a very considerable advantage in treating the two together, following the description of each group of bones by a description of the ligaments which unite them.

I could multiply instances to show that in ontogeny we find a key which unlocks the most complex structures. The temporal bone of the fœtus presents far more clearly the essential characteristics than does that of the adult, its duplex function as sense-capsule and stop-gap being much plainer. Being essentially the otocrane, or skull of the ear, its features are better understood by examining the fœtal bone before the ear-cavities are concealed by ossification. These internal cavities can then be described as they appear in the adult stage in their relations with the auditory and facial nerves and the great vessels. The minor details all group themselves around these, and the outside of the bone, which merely presents foraminæ of exit and entrance with certain muscular attachments and surface shapings not very clearly indicating the internal structure, should be described last. The current treatises on anatomy obscure the subject in the most absurd way by avoiding all description of the inside and treating the outside alone. It is true that under organs of special sense, toward the latter end of the book, the internal configuration is mentioned, but if that is the rule why not defer the description of the lateral masses of the ethmoid until that section is reached? The beginner knows nothing of what is beyond, and is condemned to memorize the minute details of the exterior, told that here a structure enters and there another has its exit, structures of which he knows absolutely nothing, the whole being as unpalatable as a dish of sawdust, "owing to some error in the quantum or composition."

Again, take the vascular system. Only by following its development from the earliest vacuolation of connective-tissue cells can we see the reason for its peculiarities. And by no other means do we get so good an idea of its *possibilities*, the origin of vessels in growing tissue and in the healing of wounds, the relations of the vascular system to the connective-tissue system, the structure of the spleen and of the bone-marrow.

The study of the alimentary canal of the adult, with its striking asymmetry and specialization of parts, should invariably be introduced by a short account of its original state as a simple mesial tube with glandular organs symmetrically arranged. The peritoneum, with its complicated folds and double sac, becomes perfectly intelligible when its various stages of development are shown.

The more complex the organs the more successful is this mode of treatment. The human brain is a striking instance. Students find it almost impossible to form a correct idea of its interior. The old anatomists exhausted their ingenuity in inventing fanciful names for every feature, and as treated by the usual method of descriptive anatomy the mass of details has no more organic connection than a pile of jack-straws has structure. But if we commence at the embryo and describe the originally simple tube which first forms the cerebro-spinal axis, and then its successive modifications until it reaches the adult stage, the whole mass becomes vertebrated as it were, and can be understood readily. The brain cavities are the hollow of the tube, the structures its wall. I do not know a more striking instance of the enlightening power of real knowledge born of orderly arrangement and intelligent comprehension of facts, than is afforded by the flood of light which this conception throws upon the structure of the nervous centres. The idea has been admirably worked out by many anatomists, among whom may be mentioned Huxley, Wyman, and Wilder, but the student may look in vain in his text-books of human anatomy for this aid; he is left to flounder in the Serbonian bog of meaningless nomenclature.

We would smile at a work on geology that did not constantly refer to the various changes that have produced existing rocks, yet we accept the human body, one of the most changeable things in the universe, as an everlasting entity to be described once for all.

The third method to which I wish to call your attention is one which should be used with more reserve than those already described. It is that of *phylogeny*, or the illustration of the anatomy of man by instances drawn from structures found in the lower animals, particularly those nearest the supposed line of descent. It is merely carrying the observations farther back in time, and the application is therefore more difficult. Not only does it corroborate and explain the facts of the development of the body, but it also gives important evidence as to the real nature of structures and their proper relations to each other. Occasionally an allusion to lower forms affords important secondary aid. A student will always remember two facts better than one provided they be genetically related, so the features of human structure may be impressed on the mind by showing how they *differ* from the same in lower forms. The many modifications produced by the erect posture are much more easily remembered by this method of contrast. Although this method gives a breadth of view highly desirable and not otherwise to be attained, it must be kept within proper and practical limits, as the medical student has no time to spend on comparative anatomy except as it immediately assists him in the study of the human body. English authors have not neglected this method. Holden constantly uses it, thereby making his books very delightful to students; and Mivart has a little work in which he has succeeded in almost concealing the anatomy of the human body by discussions of how it differs from lower forms; an excellent example of carrying a good system too far.

In teaching by the method I have described one very decided disadvantage is met at the outset. The doctrine of variation by descent, now almost universally accepted by biologists, has not yet become a part of elementary teaching. Consequently the value and significance of many facts are not understood. Every treatise on human anatomy should therefore be introduced by a chapter giving an outline of the accepted theory and the most important evidence on which it rests. This could be done without wandering from the subject. Great care should be taken to introduce only authentic evidence and to guard against strained deductions. The phenomena of variability and adaptation, differentiation of organs and division of labor should be concisely explained. At present the inquiring student usually asks his teacher, "Do you believe that man was made from a monkey?" and when informed that he does *not* is completely bewildered.

I know that my professional brethren who have learned anatomy in the old way are secretly doubtful whether anything can avail but a steady grind at the old mill. *Via trita, via tuta.* Undoubtedly a steady grind will always be necessary, but it is surely better to work with the steam-power of the higher intellect as freemen (to use Plato's phrase) than to grind away with a hand-mill like slaves simply because the venerable machine was used by our forefathers. The question you will put is, Does this method teach the anatomy which we as physicians must have to enable us to deal with the body intelligently in actual practice? There can be no doubt that it does this far better than the old system. The student attains to a real conception of the different structures of the body, and possesses more than a rote knowledge of topographical details. He not only knows what he needs as a surgeon, but also the numerous variations, malformations, and pathological changes which may occur. Should an undescribed condition arise, he can at once deal with it according to scientific methods. You may ask whether it does not overload the subject. It does not, for the reason that it classifies, arranges, and groups knowledge according to the true natural method, thus eliminating many wearisome repetitions and unimportant trivialities

which disfigure our text-books. The method is shorter than the old one.

It seems strange that English science, to which we owe the greatest theory of organic life ever formulated, should be so backward in applying that theory to practical results. The methods that I have sought to outline in this paper are so obviously the best that I almost feel that I owe you an apology for so long an exposition of them. Yet there is no English text-book on human anatomy that proceeds on this plan. Gray, as I have stated, is notably deficient; Quain much less so, yet lacking in logical arrangement. Across the Channel matters are worse. French anatomists are yet overshadowed by Cuvier and Bichat, and have never been able to understand how anything can originate beyond French soil. They have, besides, a hatred of their recent enemies, the Germans, which is not conducive to the impersonal coolness that science requires of her votaries. The great works of Sappey and Cruveilhier, new editions of which have been recently published, are already antiquated. Arranged with great skill, illustrated in the most elaborate manner, they are yet failures.

The most important works on human anatomy are undoubtedly those of Germany. The descriptive anatomy of Henle is probably the best ever published. His descriptions are models of fulness and clearness, his illustrations unique. Treating the body as an architect does an edifice, he first draws whole structures, then consecutive details in connection with these structures, showing the details completely but the surrounding parts diagrammatically. Diagrammatic drawing is of great assistance in human anatomy, enabling the student to fix his attention clearly upon one part or series to the exclusion of the rest. Since Galton has shown that even abstract concepts of mind are frequently presented to the consciousness as geometrical figures, we can understand what aid diagrams may give toward the comprehension of complicated structures.

But the most significant work that has yet been published on the subject of human anatomy is that which has recently appeared in Germany from the pen of Carl Gegenbaur, who is, perhaps, the most eminent of living anatomists.[1] It comes nearer to the ideal method of presenting the subject than any other with which I am acquainted. Prefacing with a few chapters on the laws of heredity and the division of labor, he first treats of the simple cell, then of the development of the ovum. Osteology and arthrology are considered together, and each system is taken up in the order of its appearance, the viscera following the muscular system, and the vascular and nervous systems coming last of all. Constant reference is made to the embryonic state to explain existing structures, and sparingly, wherever necessary, short remarks are made with reference to the anatomical features of the lower forms. The work is a model of compression, and the principal fault I have to find with it is that it is too short. Its value would be enhanced by a proper interweaving of topographical, surgical, and applied anatomy. The illustrations are admirable: Dr. Carter's method of imprinting the names on the organs has been adopted (and properly credited), not, however, with the success which followed its use in the hands of its inventor.

The ideal treatise on anatomy would be one on the plan of Gegenbaur, with more numerous illustrations and diagrams, both after the manner of Gray and of Henle, with the constant reference to practical application which makes the works of Holden and Humphry so charming, and a thorough treatment of surgical and topographical features.

I will cite a few passages from Gegenbaur's preliminary chapters, to show how closely his views accord with those that I have expressed in this paper:

"The human organism is not isolated in nature, but is a single link of an endless chain, of which a knowledge of the connecting links enlightens us as to each of the series. . . . The genesis of the organism shows us the complex in its simple beginnings, teaches us to understand obscure conditions of association and connection of parts, and gives to anatomy founded upon this basis a scientific form, because it is then erected upon causal relations. . . . Ontogeny and comparative anatomy are therefore the *scientific* foundations for the anatomy of man. And as human anatomy did not at first rest on these foundations, but was brought into connection with them little by little, and in proportion to their improvement, so we may consider that the science will not rest here, but likewise develop and gradually attain a higher grade of perfection."

It is an old and well-worn saw that there is no royal road to knowledge. Like most old saws, it is only half true. I claim an exception as far as anatomy is concerned; there *is* a royal road, and it is time we betook ourselves to it instead of following the flinty footpath made by sixteenth-century anatomists.

[1] Lehrbuch der Anatomie des Menschen, von C. Gegenbaur, o. ö Professor der Anatomie und Director der Anatomischen Anstalt zu Heidelberg. Leipzig, 1883.

PRACTICAL HINTS REGARDING THE METHODS OF EXAMINATION EMPLOYED AS AIDS IN THE DIAGNOSIS OF NERVOUS DISEASES.[1]

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(Continued from page 403.)

Numbness and formication.—In connection with sensory paralysis, a condition of numbness, which the patient describes as feeling as if some special part was "fast asleep," is often experienced. In others a sensation which has been compared to the "creeping of ants" over some special region is complained of. The latter has been termed "formication."

These abnormal sensations are confined exclusively to those parts in which the sensory nerves are more or less impaired. This impairment may result from some lesion of the nerves after their escape from the brain or spinal cord, or from lesions of the nerve-centres which involve their fibres of origin.

By a careful study of the symptoms, a skilled anatomist is often enabled to decide whether the lesion is cerebral, spinal, or confined to special nerve-trunks. This field is too extensive, however, to be considered in detail here.

Hyperæsthesia.—In connection with lesions of the brain and spinal cord, a condition of excessive sensibility is sometimes encountered. It is termed "hyperæsthesia."

It may exist independently of motor or sensory paralysis; or, again, it may coexist with them. Its clinical significance depends upon its seat and extent and the other evidences of disturbed nervous functions which coexist.

Hemianopsia.—A loss of vision in one lateral half of each retina is termed "hemianopsia" and "hemianopia." It is called "hemiopia" by some authors; although incorrectly so, as that term means "half-vision," while the two others mean what they are intended to express.

I quote from a late article of mine in regard to this condition, as follows:

"The following steps are commonly employed to detect the existence of this symptom: Request the patient to close one eye by pressing the lid down with the finger, and to so direct the open eye as to concentrate its gaze upon some fixed object near to it. [I usually hold up the forefinger of my own hand within a foot of the patient's open eye, and tell him to look steadily at it.] Having done this, take some object which is easily seen

[1] This article comprises, in substance, the subject-matter of a course of lectures delivered by the author before a private class of post-graduate students.

(such as a sheet of white paper) in the unemployed hand, and move it to the right and left of the object upon which the patient is gazing, and also above and below the object, asking the patient, in each case, if the two objects are seen simultaneously and with distinctness, and notice upon which side of the fixed object the patient cannot perceive the moving object. It is self-evident that the retina is blind upon the side opposite to that upon which the moving object is lost to sight.

"The most common form of hemianopsia is that in which the nasal half of one eye and the temporal half of the other is blind; this condition being the result of pressure upon, or actual destruction of, one of the optic tracts, the pulvinar of the thalamus, the cortex of the occipital lobe, or the fibres that connect it with the optic tract. (This seems to be proven by the late researches of Munk, Wernicke, Starr, and others.) Lesions at the base of the skull frequently produce this variety of hemianopsia, if they lie posteriorly to the optic chiasm.

"When the chiasm is affected, we meet the binasal type.

"There is still one more form which is occasionally encountered, viz., the bitemporal type. This has been interpreted by an autopsy made upon a case entrusted to the care of Professor H. Knapp, of this city. It must be evident that the chances would be extremely small of ever encountering a bilateral lesion which would affect only those fibres of the optic chiasm or optic tract which supply the temporal half of each retina, and at the same time leave the decussating fibres intact. How, then, are we to account for the fact that this form is sometimes met with? In the preceding portion of this article I have called attention to a peculiar arrangement of the arteries in the region of the optic chiasm. Now, it has been shown that atheromatous degeneration of the 'circle of Willis' (a peculiar arrangement of blood-vessels at the base of the brain) so impairs the elasticity of the arteries as to create a type of injury to the chiasm, so limited in its extent as to impair only the fibres distributed to the temporal halves of the retinæ, and thus to create bitemporal hemianopsia.

"We may, therefore, summarize the clinical significance of this peculiar form of blindness as follows: (*a*) The homonymous or crossed variety indicates lesions affecting the optic tract or its continuation backward, in order to reach the cortex of the occipital lobe of the same side. (*b*) The binasal variety indicates a lesion pressing upon the central portion of the chiasm. (*c*) The bi-temporal variety indicates atheromatous degeneration of the circle of Willis. Possibly (?) symmetrical lesions of the outer part of the chiasm might also cause it."

Aphasia.—An impairment of the idea of language or its expression (independent of paralysis of the tongue) constitutes this condition.

It is commonly described as of two varieties—the "amnesic," in which the memory of words is more or less effaced, and the "ataxic," in which the memory of words is perfect but the subject cannot properly pronounce them, from an inability to perfectly co-ordinate the muscles concerned in articulation.

The symptoms of this malady in either of its forms are always of great clinical interest, because some peculiarity in each case causes it to differ from others which may have been previously encountered.

In the amnesic variety the most familiar objects are commonly misnamed; the subject being oftentimes aware that the error has been committed and yet is not able to correct it. The form which this loss of memory takes is liable to vary with each case. As an illustration of this, some forget only names; others only numbers. In certain reported cases, the names of things only in dead or foreign languages were retained; in others, the reverse had been observed, the patient losing all memory of acquired tongues. Again, the sound of words often will not be recognized when the letters which form them will; and the reverse of this condition is not infrequently met with in aphasic subjects.

We owe to Broca the credit of the discovery that the centre of articulate speech could be located in the posterior portion or base of the third frontal convolution; and to many of the later pathologists the debt of overthrowing what once was the popular view, viz., that this centre is not confined exclusively to the left cerebral hemisphere. Subsequent pathological observation seems to have added strength to the view that lesions of the "island of Reil," as well as the medullary substance which intervenes between it and the centre of Broca, must be included in the so-called "speech-area;" and that the amnesic form may be dependent likewise upon lesions of the so-called "sensory area" of the brain seems probable, so that the limits of the speech-centre are not yet defined with accuracy.

The "centre of Broca" is supplied with blood by the middle cerebral artery. An embolus within that vessel will tend, therefore, to arrest the circulation of that important area, and, at the same time, it will interfere more or less with the nutrition of the corpus striatum—the ganglion which probably controls all motor impulses sent out from the brain to the muscles of the opposite side of the body. Now we know clinically that embolism is a frequent cause of aphasia, and that hemiplegia almost always accompanies it. We also know that the middle cerebral artery of the left side is the most frequent seat of embolic obstruction. This fact helps us to interpret the development of right hemiplegia in connection with aphasia, as is found to exist in the large proportion of such cases. Seguin found two hundred and forty-three cases in which right hemiplegia existed out of a total of two hundred and sixty—left hemiplegia being present in but seventeen cases.

In the ataxia variety of aphasia the patient can usually write what cannot be spoken, thus proving that the memory of words is not effaced, but rather the ability to so co-ordinate the muscles of speech as to properly pronounce them. This condition must not be confounded with aphonia (loss of voice). Several cases have been reported where the amnesic form has given place to the ataxic, and the lesion has been found over the centre of Broca. It would seem, therefore, that the third frontal convolution (although placed in close relationship with the oral and lingual centres of Ferrier) has some connection with the memory of words as well as the simple apparatus of speech.

Cases of aphasia should be subjected to a variety of tests which will tend to bring out the special peculiarities of each.

If lesions of the cerebral cortex exist as the exciting cause of the aphasia, convulsions may be associated with its development. If numbness or anæsthesia coexist with hemiplegia and aphasia, it indicates that the "motor and sensory tracts" are involved, as well as the centre of speech.

Paralysis from Spinal Lesions.—Certain general axioms must form the basis of our ability to diagnose the existence of spinal lesions and the regions of the cord which are affected by them. They may be expressed as follows:

1. Lesions which involve the "kinesodic system," or motor tracts, may induce paresis or paralysis, spasm, and atrophy of muscles. They never cause anæsthesia, numbness, marked and permanent pain, or other sensory phenomena.

2. Lesions of the "æsthesodic system," or sensory tracts, cannot induce paresis, paralysis, spasm, or muscular atrophy. They can only create sensory manifestations (such as pain, hyperæsthesia, anæsthesia, numbness, etc.) and an inability to co-ordinate muscular movements (ataxia).

3. Paralysis and atrophy, when due to spinal causes, occur upon the same side of the body as the spinal lesion, and the same may be said of ataxia.

4. Sensory phenomena are manifested upon the side of the body opposite to the spinal lesion.

5. The so-called "cincture feeling," which may be referred to various parts of the body, can be taken as a valuable guide in deciding as to the probable limits of a focal lesion.

6. Contracture of paralyzed muscles is strongly diagnostic of lesions of the corresponding lateral column of the cord (the so-called "crossed pyramidal column," Fig. 21).

7. Atrophic changes in muscles point toward a lesion of the cells of the corresponding anterior horn of the spinal gray matter.

8. Symptoms indicative of destruction of any of the special physiological centres of the spinal cord are of value in determining the extent of both systematic and focal lesions of the cord.

9. Destructive lesions of certain parts of the brain tend to induce a descending degeneration of the fibres which pass chiefly down the lateral column of the opposite side of the cord.

10. Scratching or stroking the skin over certain regions of the body causes a reflex contraction of special muscles when the cord is healthy. These are the so-called "superficial spinal reflexes." They are of value oftentimes in deciding as to the upper limits of a lesion. Among the more important of these superficial reflexes may be enumerated the plantar, cremasteric, abdominal, epigastric, and scapular. Both cerebral and spinal lesions create in them modifications which possess clinical value.

11. The so-called "deep spinal reflexes" are called into action by first putting a muscle in a state of moderate tension, and then exciting it to contraction by some artificial stimulus, as a slight tap or blow for example. Among the more important of these may be mentioned: (1) The knee-jerk or patella-reflex; (2) the foot- or ankle-reflex; (3) the peroneal or lateral foot-reflex. These tests are employed, like the preceding ones, to determine the state of the spinal cord when the existence of a lesion is suspected. They may be increased, diminished, or abolished, according to the character of the lesion.

12. Pain in the region of the spine is a rare symptom of disease of the spinal cord. It is more frequent in disease of the bones or meninges.

In addition to these pathological axioms, certain physiological deductions respecting the spinal cord may be made. Fig. 21 will assist the reader to a clear conception of the columns referred to.

(1.) The direct pyramidal and crossed pyramidal columns of each side contain only motor fibres. Those in the former (Türck's columns) are connected with the corresponding cerebral hemisphere; while those of the latter are connected with the opposite cerebral hemisphere.

(2.) The posterior column of each side (comprising two portions—that of Goll and Burdach) serves to convey sensory nerve-fibres and also commissural fibres (?) which connect different segments of the cord; hence they are physiologically associated both with sensation and the co-ordination of muscular movement.

(3.) The lateral column of each side probably conveys vaso-motor fibres. It has been proven to convey fibres also directly to the cerebellum (the "direct cerebellar column").

(4.) The multipolar nerve-cells in the anterior horn of the spinal gray matter possess a "trophic function." When they are destroyed, the nerve-fibres arising from them, and the muscles also which are supplied by those fibres, undergo atrophy.

(5.) The fibres of Türck's and the crossed pyramidal column have their "trophic centre" in the motor area of the cerebral cortex. Any lesion which tends to sever these fibres from this centre creates a descending degeneration of all the nerve-fibres so disconnected as far as their ultimate distribution to other segments of the cord below the lesion.

(6.) The spinal nerves may be regarded as guides to the various segments of the spinal cord, each segment consisting of a disk of the cord of sufficient thickness to include a separate pair of spinal nerves which are attached to it.

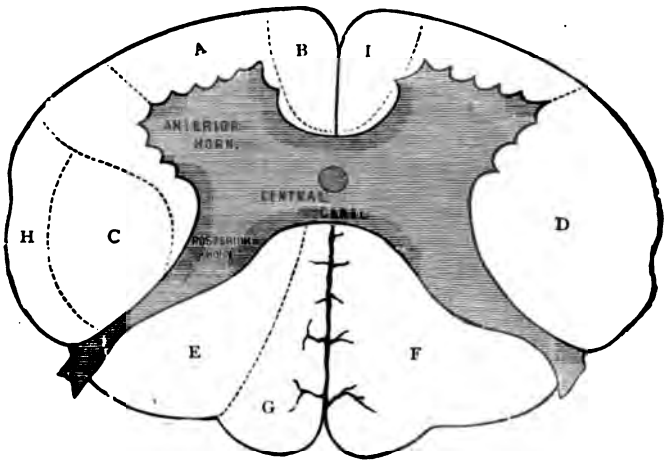

FIG. 21.—A Diagram of the Various Columns of the Spinal Cord as now recognized from a Physiological Standpoint. The right half of the cut shows the older subdivisions of the cord. A, anterior root zone; B, column of Türck; C, crossed pyramidal column; D, lateral column of older anatomists; E, column of Burdach; F, posterior column of older anatomists; G, column of Coll; H, direct cerebellar column; I, anterior column.

(7.) Each spinal segment, with its attached nerves, may be figuratively regarded as a distinct spinal cord for that limited portion of the body to which its nerves are distributed, viz., the muscles to which the anterior roots of the spinal nerves proceed, and the parts supplied with sensation by means of the posterior roots of the same.

(8.) The superimposed segments of the cord are bound together by tracts of nerve-fibres. Some of these are continued into the brain, while others are purely commissural in type. We can attribute to the former (the motor and sensory tracts) the conduction of motor impulses from the brain to the various spinal segments, and, again, of impressions of a sensory character from the periphery of the body to the brain itself. The latter (the commissural fibres) serve to assist the different spinal segments in the performance of all acts where a harmonious and simultaneous action of several segments of the spinal cord is demanded.

(9.) The two lateral halves of each segment of the spinal cord are not distinct from each other, because a connecting band of the gray substance of the cord (the gray commissure) and also one of the white substance (the white commissure) bind them together. The white commissure lies at the bottom of the anterior median fissure; the gray commissure fills the remaining space between the anterior and posterior median fissures.

(10.) The anterior horns of the spinal gray matter contain cells of large size which are connected (1) with motor nerve-fibres joining each spinal segment with the brain, and (2) with fibres of the anterior root of the spinal nerve associated with the muscles controlled by each segment. Thus these nerve-cells are interposed between the fibres of the cord and those of the muscles; an arrangement which permits of an automatic action of the cord, irrespective of cerebral influences.

The cells of the anterior horns appear to control the nutrition of the muscles connected with them by means of the nerve-fibres.

(11.) The cells of the posterior horns of the spinal gray matter are probably connected more or less intimately with the fibres of the posterior or sensory roots of each spinal segment, and also with the paths of sensory conduction to the brain. They do not exert any influence upon the nutrition of the parts associated with them by means of the spinal nerve-fibres.

(12.) The spinal reflexes are probably performed by means of an anastomosis of the processes of the cells of the anterior and posterior horns of each lateral half of a spinal segment. This enables a sensory impression, which is conveyed to the spinal segment by means of the fibres of the posterior root of the spinal nerve, to become transformed into motor impulses by means of the cells of the anterior horn. These are then transmitted to the muscles by the fibres of the anterior root of the spinal nerve. These reflexes will be considered in detail later.

All focal lesions of the spinal cord are liable to present combinations of both motor and sensory phenomena, and it is this peculiarity which distinguishes them during life from the so-called "systematic lesions."

The height of focal lesions of the cord and their extent in a transverse direction may be ascertained with some accuracy during life by a knowledge of the distribution of the spinal nerves, the point where each is given off from the cord, and the functions of the different columns of the cord itself. Such cases are of special interest to the anatomist.

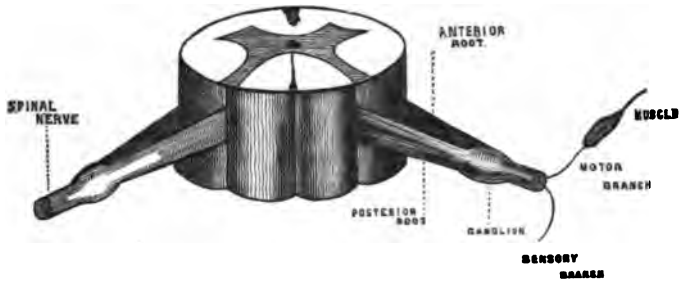

FIG. 22.—A Spinal Segment. The two roots of the spinal nerve are shown; also the sensory and motor fibres of which each is composed.

If the motor tracts of the cord are involved by the lesion, all the nerves which spring from the cord below the lesion will give evidence of paralysis; should the lesion be unilateral, only the motor nerves of the corresponding side below the lesion will be affected, but if bilateral, those of both sides will be paralyzed.

The symptoms of incoördination of muscular movements are developed on the same side as the lesion of the cord; hence, when the lesion is bilateral both sides of the body will be affected in exact proportion to the amount of damage done to the columns of Burdach.

Sensory phenomena are produced on the side opposite to the spinal lesion, because the sensory fibres decussate before passing upward to the brain. Should a lateral lesion of the cord involve all of the corresponding lateral and posterior columns, motor paralysis and incoördination would exist on the corresponding side of the body below the seat of the destructive process, and all sensory manifestations would be confined to the opposite side of the body. There are rare exceptions to this rule, which are clinically observed, where the motor and sensory phenomena are upon the same side of the body; these are probably to be explained in one of two ways—either that the spinal nerve-roots are involved by the lesion, or that the sensory nerve-fibres are impaired before the decussation occurs in the cord, because we know that the crossing is not always immediate.

In focal lesions, as well as the systematic, the signs of atrophy in the muscles of the limbs points to a destructive process in the ganglion-cells of the anterior horns of the spinal gray matter.

Rigidity and spasm of the muscles, if occurring after paralysis (post-paralytic contracture and spasm), indicate a descending degeneration of the lateral columns, as a rule.

Alterations in the bodily temperature and sweating of the limbs, when they occur as a result of spinal lesions, are to be attributed to a disturbance in the so-called "vaso-motor" centres of the organ.

The nutrition of the bones, joints, and skin is liable to be affected by focal lesions. These are occasionally developed in connection with sclerosis of the posterior columns of the cord.

The sexual functions, and also the physiological acts of defecation aud micturition, depend upon the integrity of centres in the lumbar enlargement of the cord. They may be seriously impaired by focal lesions of that region.

(To be continued.)

DANDRUFF: WHAT IT IS, AND HOW TO CURE IT.

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THE term dandruff, or dandriff, has often been very loosely used to designate at least four distinct diseases of the scalp, namely: pityriasis simplex, seborrhœa sicca, eczema erythematosum or squamosum, and psoriasis, and it is probable that a fifth disease has been included under it, namely, a diffuse trichophytosis capitis. Properly speaking, its use should be limited to that scaly condition of the head which is due to seborrhœa sicca or pityriasis simplex.

Whether these latter two diseases are identical or not is still an unsettled question. By the majority of the German systematic writers they are regarded as one and the same disease, but they present enough points of difference to entitle them to separate consideration. I have here placed them together for convenience, as they give rise to a somewhat similar condition of the scalp and are amenable to the same treatment. To draw the line sharply between the two is sometimes exceedingly difficult.

Seborrhœa sicca is a functional disease of the sebaceous glands in which an abnormal amount of sebaceous matter of abnormal consistence is secreted by them. This dries upon the scalp and either appears in the form of thin, fatty plates about the mouths of the hair-follicles or adheres to the hairs in flakes, or, if of more pronounced nature, heaps up into thick, fatty masses or cakes which cling with a good deal of tenacity to the scalp. This latter form is seen very frequently in children during the early months of infancy. If portions of these crusts or cakes are rubbed between the thumb and finger they will impart an unctuous feeling. The scalp in this disease is usually pale or leaden-hued, and when the crusts are removed shows no tendency to moisture, or else exhibits a fatty, glistening surface upon which the crust is soon renewed. In some cases more activity is shown and the scalp is hyperæmic. The affection runs a chronic course, is generally quite uniformly distributed over the whole head, but in some cases it is confined for the most part to the edge of the hair over the forehead and to the vertex of the head. Some pruritus at times is present, and sometimes, in consequence of scratching, there will be excoriations. When we have the head covered with thick, fatty crusts which give an unctuous feeling when rubbed between the thumb and finger, and upon being removed leave the scalp pale, there will not be any difficulty about the diagnosis. But in those cases in which only a few dry scales are present and the scalp is slightly hyperæmic, our decision as to the disease cannot be so readily given.

Pityriasis simplex, or *capillitii*, is essentially an interference with the cornification of the upper cell-layers of the skin, on account of which, instead of the normally compact stratum corneum we have a constant shaling off of the imperfectly formed epithelial scales. The whole scalp may be quite uniformly affected, or the disease may be limited to the vertex, or it may occur in circumscribed patches. The scales are thin, easily detached from the scalp, sometimes so easily as to be readily blown off, and they do not pile up into crusts. When rubbed between the thumb and finger these scales do not impart the same unctuous feeling as do those of seborrhœa sicca, though

there is usually a certain amount of sebaceous matter present, as in seborrhœa sicca there is always an admixture of epithelial scales. More or less hyperæmia is usually present, though in some cases the scalp is of normal color. There is never any moisture of the scalp. Pruritus often annoys the patient, especially when he is overheated or is using his brain actively, and this inviting scratching, excoriations are often met with.

These two diseases, differing mainly in their essential lesion and constituting dandruff, cause annoyance by the constant falling of the scales upon the shoulders of the patient, ruining the clothing or giving it the appearance of being powdered, and by the pruritus which attends them. It is for these reasons, in most cases, that the patients apply to us for relief. But dandruff is in many cases the forerunner of baldness, and the fact that a long-continued seborrhœa sicca, or pityriasis, is the most frequent cause of premature alopecia should stimulate us to use our best efforts to cure the disease.

Causes.—Dandruff frequently occurs in strumous individuals who are anæmic and have a sluggish circulation marked by cold hands and feet. Adolescence is its peculiar time of appearance, and chlorotic young girls are apt to be annoyed by it. It is an attendant upon chronic debilitating diseases, as rheumatism, syphilis, phthisis, and the like, and comes on after profound disturbances of the constitution, such as fevers and parturition. Dyspepsia and constipation are very common exciting causes or aggravants of the disease. Improper care of the scalp, the use of the fine-toothed comb, and of pomades, hair "tonics," and hair-dyes will give rise to the disorder. In some cases there is apparently no cause for the disease, but careful inquiry, even in these cases, will usually bring out some latent cause, such as worry, overwork, mental or nervous strain, and the like. Malassez, Thin, and some others claim to have found a parasite as the origin of the trouble, and recent experiments by Lassar and Bishop would seem to prove that the disease, at least pityriasis simplex, is contagious. These investigators (Lassar and Bishop) took the hair and scales from the head of a healthy German medical student, made a pomade by chopping them up and mixing them with vaseline, and rubbed it into the back of a guinea-pig and of a rabbit. In the course of three weeks these animals presented an appearance similar to that of the student. The experiment was twice repeated, using the hair and scales from the first and second pair of animals respectively, and with like result.

Diagnosis.—Before we can intelligently treat a case of scurfiness of the scalp we must arrive at a correct diagnosis, and must differentiate between dandruff on the one hand and eczema, psoriasis, and diffuse trichophytosis capitis on the other.

Eczema is distinguished by the scales not being so abundant nor so greasy as in dandruff; by their being more parchment-like, as if formed rather of dried serum than inspissated fat; by the disease not being so diffuse but more limited to certain patches, or to one side of the head, and implicating contiguous non-hairy parts; by the greater amount of hyperæmia; by the moisture which is either present or readily induced by scratching; by its being far more pruriginous, and by its history. If thick crusts are present they will usually be of a greenish-yellow color, and when removed will expose a reddened oozing surface.

Psoriasis rarely occurs upon the scalp without being found on other parts of the body. It occurs in the form of circumscribed round, or oval reddish, infiltrated patches, which if of large size are seen to be composed of a number of smaller round patches which have joined together at their edges. These patches are covered with a thick mass of grayish or white glistening scales which are not greasy, and on being removed expose a number of minute bleeding points or red dots, and do not reform as quickly as those of seborrhœa. The disease tends to form a fringe under the hair on the forehead, and sometimes to push its white, glistening, scaly surface down upon the forehead, and often presents a patch just in front of the ear.

Trichophytosis capitis (tinea tonsurans), when occurring as a "ring-worm," should offer no difficulty in diagnosis, its circular shape and the presence of broken and gnawed-off hairs being pathognomonic. The diffuse form is rare, and is to be diagnosed by its history of gradual spread from numerous reddish points or papules, by its scales not being greasy, by the hair being broken off and fragile, and by the microscopical examination of the hair and scales, which will reveal the trichophyton fungus in abundance.

Besides these three diseases lupus erythematosus may sometimes call for differentiation. It is rarely met with upon the scalp, and then occurs in the form of a sharply defined patch with an infiltrated reddened base covered by a thin adherent scale, which being raised shows on its under side a number of prolongations, the sebum plugs withdrawn from the follicles. The disease causes loss of hair and well-marked atrophic changes in the scalp.

Treatment.—A good deal in the way of preventive treatment of dandruff can be accomplished by the proper care of the scalp and of the general health. More care than is usual should be bestowed upon the operations of brushing and combing the hair, washing the scalp, and upon the selection of the brush and comb. The brush should be composed of bristles well set into the back. The bristles should be placed in little clumps at regular distances and rather far apart, and those in each clump should be of unequal length and arranged so that the longest ones are in the centre of the group. It is well to have two brushes, one stiff enough to warm the scalp when used with vigor, and one quite soft. The comb should be made with large teeth set wide apart. When held up to the light the teeth should show no roughness or inequality of surface. The fine-toothed comb should be banished from the toilet-table, as it is an active agent in producing inflammatory conditions of the scalp, as many a case of eczema capitis in children will testify. In the morning the hair should be thoroughly opened up in all directions with the comb, and it and the scalp brushed vigorously with the stiff brush. Then the stiff brush should be laid away for the day, and the soft one used in parting the hair, in polishing it, and in subsequent brushings during the day.

Do not wash the head too much. I believe that the so-commonly practised daily sousing of the head in water is hurtful to the hair and scalp, especially if they are not carefully and thoroughly dried afterward, and a little oil or vaseline rubbed into the scalp. It is not the daily sousing which is objectionable, but the insufficient after-care. Water renders the hair dry, and the daily sousing only washes the head superficially. A good shampoo every week or ten days for those persons exposed to a good deal of dust, and every two or three weeks for other people, is sufficient for cleanliness. For the shampoo, soap and water, borax and water, or one composed of the yolk of an egg beaten up in lime-water, are all simple and good, but it must not be forgotten to wash out these materials with plenty of clean water and to thoroughly dry the hair and scalp.

Patent hair "tonics," pomades, washes, and dyes are to be avoided. Those containing grease—the pomades—are, to use an Anglicism, "nasty," give the hair an unnatural lustre, smear the hat-band and whatever the hair touches, and becoming rancid act as local irritants. None of these dressings are needed by the healthy scalp, and the proper care of the scalp as above indicated will preserve the hair in better condition than they will.

The nearer the body can be kept to the standard of perfect health by means of bathing, exercise, and good diet, the less likely is dandruff to develop. When, therefore, the disease has appeared, and we are applied to for relief, one of our first inquiries should be concerning the general health, and our first efforts addressed to

remedying anything found to be wrong. For important as our local measures are in relieving the local disorder, in most cases we must depend upon internal treatment to render the cure permanent. The internal treatment must be along the lines marked out in works upon general medicine—tonics, as cod-liver oil and iron, for the debilitated; the acids and bitters for the neurotic and dyspeptic; mercurials, podophyllin, and the like for the bilious, etc. Duhring recommends sulphur and the sulphide of calcium as of especial efficacy, and arsenic sometimes acts well. We should insist upon our patient obeying the laws of general hygiene, and instruct him in the above or similar rules as to the proper care of the scalp.

Various substances, all of a more or less irritating nature, have been recommended for the local treatment of dandruff. Such are tincture of cantharides, 3 j.–ʒ j.; tincture of capsicum, 3 j.–ʒ j.; tincture of nucis vomicæ, 3 j.–ʒ j.; chloral, 3 j.–ʒ j.; bichloride of mercury, gr. ij. to iij.–ʒ j.; the oleate and other mercurials in proportionate strength; sulphur, 3 j.–ʒ j.; carbolic acid, gr. x. to xx.–ʒ j.; quinia, strychnia, etc. These have been given either in solution in alcohol, water, or the oils of olive, castor, rosemary, sage, etc.; or as ointments. A good menstruum for their exhibition is composed of glycerine, 3 j.–ij., to dilute alcohol, ʒ j. Vaseline forms the best medium for their exhibition as ointments. Excepting where the hair is decidedly thin, so stiff an ointment as the ungt. zinci oxid. should not be used, and lard itself is apt to become rancid.

Of all the above remedies, I have been led by experience to place my main reliance upon sulphur and the mercurials, and would advise the following plan of local treatment. If the case presents itself with a decided accumulation of scales, or if crusts are present, direct the patient to saturate his head with oil, preferably sweet almond oil, before going to bed, and to place over his head a flannel cloth soaked in the oil, and outside of all an oiled silk cap. The next morning he should shampoo his head thoroughly with soap and water, using by preference the tincture of green soap, and wash out the soap with plenty of water. The scalp is then to be dried by vigorous rubbing with a coarse towel, and the hair by pulling it through a soft towel. If the crusts by this method are not completely removed, the oil should be kept on during the day, the head again soaked at night and washed with the soap and water in the morning. If the scalp should appear very hyperæmic after the crusts are removed, anoint the head with vaseline or some simple ointment, as rose ointment, until the hyperæmia is lessened. When the crusts are removed and the hyperæmia overcome, have an ointment composed of one drachm of sulphur loti to one ounce of vaseline applied every morning to the scalp. If the scales form rapidly apply the oil every night and the sulphur ointment every morning, and wash the head every second or third day. As soon as scaling is lessened stop the use of the oil, but continue the ointment, at first using it every second morning, then gradually reducing its application to once a week. Throughout this plan of treatment the head should be shampooed about once a week with the tincture of green soap, borax and water, or the yolks of three eggs beaten up in one pint of lime-water, to which a half ounce of alcohol is added. Another excellent ointment for these cases, for the formula of which I am indebted to Prof. Bronson, of the New York Polyclinic, is composed as follows:

℞. Hydrarg. ammon..... gr. xx.
Hydrarg. chlor. mitis..... gr. xl
Petrolati..... ʒ j.
M.

This applied once or twice a day has yielded most admirable results in a number of cases of simple dandruff. Its consistence being that of a Mayonaise dressing renders it an elegant pomade for private practice. Its use should be combined with the occasional shampoo as directed above.

The persistent and systematic use of either of these two plans of treatment, together with a proper oversight over the general health, should cure every case of dandruff. But we should be prepared for occasional relapses, and not give our patients promise of too speedy a cure.

14 East Thirty-first Street.

AN OBSTINATE CASE OF OVARIAN DYSMENORRHŒA.

Oöphorectomy, with Remarks on the Utility of the Operation.

By E. M. HERMANCE, M.D.,
Yonkers, N. Y.

Miss Matilda B——, a virgin, twenty-three years of age, born in the United States, was ordinarily a healthy child. At the age of twelve began to menstruate, and did so normally to the best of her recollection for about a year, when she began to have dysmenorrhœa. About this time her father was taken suddenly ill and she was sent for a physician, a distance of something over a mile. She ran rapidly all the way, and as she was going up the doctor's steps she was seized with a severe pain in the left side and felt, as she describes it, something give way in her side. The pain was in her left iliac region. This pain has continued ever since, *i.e.*, for the past ten years. She was menstruating at that time and had been flowing for about a week, and continued so to do for about a week longer. This was her first attack of dysmenorrhœa, and from that time forth every catamenial period was attended with intense pain.

Her suffering finally became so great that about two years after this time she applied to a physician for treatment; since then she has never ceased to be under a physician's care. On June 21, 1880, she applied to me for treatment, and I have continued to treat her ever since. At that time the case presented to me the foregoing history and the following symptoms: Dysmenorrhœa, leucorrhœa, dysuria, anorexia, anæmia, well-marked dyspepsia, reflex paroxysmal cough, facial and pelvic neuralgia, pain in the back, and the pain in the left side already referred to. These were the symptoms, and they naturally suggested to my mind some ovarian disease, but the patient was a virgin, at that time twenty years of age, and very adverse to a uterine examination. I concluded to observe her carefully and try the effect of constitutional treatment. Accordingly I put her upon a course of chalybeate treatment with vaginal injections. This plan I continued faithfully for three months. In the meantime, having observed her menstruate three times, and feeling thoroughly confirmed in my first impression that there was local difficulty, I insisted upon a uterine examination, and after stating to her parents my reasons for desiring such an examination, they finally consented, and in the month of September, 1880, Dr. F. E. Beckwith and myself made a very careful examination of the patient. We discovered a stenosis of the internal os uteri. It was with the greatest difficulty that we could pass the smallest uterine probe; furthermore a slight retroflexion and a chronic cervical endometritis existed. This with the symptoms before enumerated completed the history of the case up to that time.

The doctor advised local treatment, and from that time I twice a week made local applications of iodine, nitrate of silver, etc., to the cervical canal, at the same time continuing my constitutional treatment. This I continued for some months and then had the patient wear a pessary for the retroflexion. In spite of this she did not improve any, and the dysmenorrhea was increasing in severity, so that the patient passed a most miserable existence. This state of affairs continued for about a year, when thinking that the dysmenorrhœa might be obstructive in character and depend upon the stenosis of

This was formula xi - but I should be xl - vide correction p 491. -

the internal os, I asked Dr. Benedict to see the case with me. This he did in October, 1881, and we decided to perform hysterotomy. We accordingly did so (the operation was followed by severe pain and no improvement), binding the cervix with a hysterotome. I did not, however, feel satisfied with this operation, and on December 9, 1881, Dr. W. M. Chamberlain saw the patient with me and agreed that it was certainly indicated that the stenosis should, if possible, be overcome. At my request he performed hysterotomy, and afterward thoroughly dilated the cervical canal and placed a glass plug in the cervix. This I kept *in situ* fourteen days, during which time the patient suffered intense pain, and required very large doses of morphine to at all relieve her. This operation, like the first, was very unsatisfactory, as a subsequent examination revealed a considerable and marked contraction, so on April 27, 1882, Dr. Chamberlain again saw the patient with me and made a wholesale section of the cervix. We again placed a glass plug in the opening, and to make assurance doubly sure, kept it there for over a month. The operation was a perfect success, and as a result we had a patulous cervical canal, and were now able to positively state that if the dysmenorrhœa continued it was not due to the stenosis of the internal os, but was ovarian. It did continue and grew steadily worse.

I then stopped all local treatment and operative procedures, and gave up the treatment of the uterus and proceeded to try the effect of anti-spasmodics. I administered tr. pulsatilla, cannabis indica, hyoscyamus, aconitia, nux vomica, belladonna, croton chloral cimicifuga, and the whole list of remedies that ever have been used for neuralgia. I also employed rectal suppositories of belladonna, opium, iodoform, etc., but all to no purpose.

The patient continued to grow worse, and at this time was in a pitiable condition, pale, emaciated, anæmic, in bed two or three weeks out of every four; a victim to the morphine habit, and made so by myself; her condition can hardly be described. Her sufferings were at times so intense that she would, as she often told me, rather die than live.

I had exhausted all the resources of art. I told her positively that I believed there was but one hope for her, and that was offered in the dernier ressort of oöphorectomy. I had thought the matter over and made up my mind that she could not long live as she was, and she was better off without her ovaries and free from pain than with her ovaries, suffering as she did.

November 7, 1883, she went to the Women's Hospital and was assigned to Dr. Thomas for treatment. He examined her on November 21st, and at his request I was present at the examination. After examining her a consultation was held, and it was then decided to perform oöphorectomy. She was transferred to a cottage, and on December 1, 1883, assisted by Dr. Wood, Dr. Thomas performed the operation. The patient had a pretty severe time. Large doses of morphine had to be administered, and at one time the temperature ran so high that it became necessary to use the cold pack. She, however, did well, and one week from the day of operation—

December 7th.—Temperature, evening, 101⅘°.

December 8th.—Temperature, morning, 100⅘°; evening, 100°.

December 9th.—Temperature, morning, 99⅘°; evening, 100⅕°.

December 10th.—Temperature, morning, 99⅘°; evening, 99⅘°.

December 11th.—Temperature, morning, 99°.

So you see she made a good recovery, and returned to Yonkers December 30, 1883, at which time I again resumed charge of the case. Three days after her operation she flowed considerable, so that they were obliged to administer remedies to check it.

On January 9th, her regular time for menstruating, she had a show for about an hour; it then ceased. Again about February 9th she had a similar show, but since then she has not seen anything. Three months and a half after the operation she is moderately comfortable. It is true she has some pain, but she does not have those paroxysms of internal suffering. She has, as formerly, prolapsus uteri, due to weakness and anæmia, but I believe the result of the operation will prove satisfactory.

Now, it may be asked, was this operation justifiable? I have claimed that it was, and if you deny my conclusion you assert what seems to me to be an absurd proposition, namely, that her trouble and agonizing suffering, which must certainly have ended in a miserable death, was preferable to health and a continued existence, which without her ovaries might prove enjoyable.

It may not now be amiss to make a few remarks upon the operation. The object of the operation, as stated by Dr. Battey, who first performed it, is the production of the menopause by art. Dr. Battey, in a paper read before the International Medical Congress in 1881, says that the operation appears first to have been contemplated as early as 1823 by James Blundell, of London, and he himself, in October, 1865, first conceived the idea of artificially producing the menopause. On July 27, 1872, Hegar did the operation, and on August 1st Lawson Tait performed it at Birmingham.

The indications for performing it are summed up in the following: "Oöphorectomy to determine the change of life, and the change of life for any gross disease which is incurable without it, and which is curable with it," or, in other words, when a case presents itself ask these three questions: "Is this a gross case? Is it incurable by any of the resources of art short of the change of life? Is it curable by the change of life?"

Dr. Battey goes on to say that "the operation in its very essence opens a door for widespread abuse. Much as we must deprecate the still-existing prejudice which would offer a lifetime of untold misery, and even life itself as a holocaust upon the altar of some supposed sanctity in female sexual organs, we cannot forget that the medical profession is to a degree the guardian of public morals, and is bound to maintain decency and self-respect; this operation, therefore, cannot in any case be received as an alternative for other means of cure, but must be held, as it was originally offered, as a 'dernier ressort.'"

"Proximate result of the operation: First, mortality.—In the cases collected the death rate has been twenty-two per cent. for the complete operation, and nine and one-half per cent. for the incomplete.

"Second, menopause.—It is a well-known fact that in exceptional cases the menses have reappeared. In Battey's cases, when even small fragments of the ovaries were left, the menses invariably continued, and in one instance a child even was born.

"Female graces unimpaired, with often a positive gain. It is unfair and premature to set down any case as a failure until ample time has been allowed for the cyclical change to have become complete in its entirety."

The difference between Battey's and Tait's operations is that Battey removes the brains and Tait the brains and Fallopian tubes.

In speaking of this Lawson Tait says, "The most important point of all in the performance of this operation is the complete removal of the Fallopian tubes as well as of the ovaries."

ANOTHER SURGICAL FOLLY.—The local use of nitrate of silver for the intended destruction of a virus, or for the disintegration and removal of fungous or malignant tissue, is founded on error. Nitrate of silver, though popularly called "caustic," is not a caustic; it is a mere irritant, scarcely more active than tincture of iodine. The caustics to be used by surgeons for the purposes mentioned are chromic, nitric, carbolic and acetic acids, potassa and similar active drugs, and the hot iron. Under many circumstances the best caustic is a sharp scalpel.—*The Polyclinic.*

Progress of Medical Science.

Oculo-Cerebral Vertigo.—The following peculiar case is related by Dr. Cuignet, in the *Recueil d' Ophtalmologie*, vol. iv., No. 9, as occurring in the person of a lady of otherwise good health, thirty-four years of age. A dark veil seems to rise from the lower portion of the visual field of the left eye, and covers it completely in from thirty to sixty seconds. Then it appears in the upper part of the right eye and slowly descends, never, however, covering entirely the field of vision on this side. At the end of one or two minutes the sight slowly returns in the order in which it was obscured, the lower part of the field of vision of the left eye receiving the first impressions of light, and then, when this eye is clear, the veil falls slowly from the right eye. From the commencement of this obscuration the patient experiences a sensation as if she would fall unless supported. At the same time consciousness is almost lost. There are no sequelæ to these attacks, but once they have passed the patient feels perfectly well and suffers no pain nor disturbance of any kind. Dr. Cuignet was unable, after the most thorough examination of the patient herself and of her antecedents, to discover any cause to which these attacks could be attributed, and he was therefore driven to regard them as an idiopathic nervous affection. They recurred at irregular intervals from several times a day to as infrequently as two months apart. The patient had been subject to them for about six months.

Washing out the Stomach in Infants.—In the *Prager Medisinische Wochenschrift*, Dr. Epstein claims to have seen good results from washing out the stomach of nursing infants for various intestinal disorders. He uses for this purpose flexible catheters (Nélaton) of various sizes. By means of a small piece of glass tubing, the catheter is connected with a piece of rubber tubing of suitable length. Its introduction into the stomach of children, even if only a few days old, is said to be as easy of accomplishment as into that of adults. Only ordinary precautions are necessary in performing this act, the tube being propelled forward by involuntary efforts of deglutition. Contractions of the stomach result from the irritation caused by the presence of the tube, and evacuation of its contents and irrigation follow. Epstein uses thirty to fifty grammes of lukewarm distilled water to accomplish the washing, and to the water may be added a little benzoate of magnesia, or hydrocarbonate of soda. The liquid is slowly poured into the tube through a funnel, which is raised (with the end of the tube) to a sufficient height, care being taken to prevent the introduction of air. If the infant should cry during the process, the latter must be suspended for the time. It may be necessary to repeat the washing—perhaps three times—before the liquid is returned without discoloration. With ordinary care, perforation of the walls of the stomach is not possible; there may, however, be slight capillary hemorrhages excited by the efforts at vomiting. There is also no danger that a tube of the given length will pass the pylorus and empty its contents into the intestine. In the case of an infant with diseased lungs or heart, the washing is contra-indicated. The indications for the procedure are catarrh of the stomach, added to a similar condition of the mouth and intestines, fermentation and indigestion, with the peculiar products attending these conditions. At the commencement of infantile cholera it has also proved useful, and it should be continued as long as the child shows a disposition to vomit.

Variation and Disappearance of Cardiac Murmurs.—Dr. Greves (*Liverpool Medico-Chirurgical Journal*) writes concerning the variations and changes so often observed in certain cardiac murmurs, dependent on definite organic lesions. He relates the histories of several cases, from a study of which he draws the following conclusions: (1.) Although murmurs are among the most constant of the physical signs of heart disease, still their presence does not necessarily indicate the existence of incurable lesions, nor their absence that such lesions are not present. In forming a correct diagnosis and prognosis of any case, therefore, too much reliance must not be placed upon the presence or absence of murmurs, but other symptoms must receive careful consideration, for often on them alone is it possible to form a correct diagnosis. (2.) The presystolic murmur of mitral stenosis, the most typical of all murmurs, occasionally disappears, the lesion still remaining. Mitral regurgitant murmurs, when due to simple relaxation of the heart's muscle and dilatation of its cavities and orifices, as in chlorosis and general febrile conditions, in most cases completely disappear under appropriate treatment. (3.) Tricuspid regurgitation is occasionally a temporary condition, due to bronchitis, etc., and when the cause is removed this condition is recovered from, as is indicated by the disappearance of the murmurs. (4.) Aortic systolic murmurs, due to a permanent lesion at the aortic orifice, may undergo changes in their intensity, but never completely disappear. (5.) Aortic diastolic murmurs in certain extremely rare cases have been known to disappear. In these cases a systolic aortic bruit is always present and remains persistent, thus indicating the existence of a lesion. (6.) Pulmonary systolic murmurs are persistent when due to an organic lesion, but if non-organic, may disappear temporarily or permanently.

Recent Remedies for Gonorrhœa.—From a number of trials with remedies recently suggested in the treatment of gonorrhœa Dr. Keyes (*Journal Cut. and Vener. Diseases*, March, 1884) concludes as follows: 1. A mild bichloride of mercury solution irritates the mucous membrane of the urethra more than it seems to irritate an open wound. 2. It appears that an abortive treatment of true gonorrhœa is yet to be discovered. 3. The hot-water treatment of gonorrhœa is unreliable.

Poisoning from Muriatic Acid.—A fatal case of poisoning from hydrochloric acid is reported by Dr. White in *The Lancet*, January 12, 1884. The patient, aged fifty-four years, recently discharged from a lunatic asylum, when brought to the hospital stated that he had swallowed two tablespoonfuls of strong "spirits of salts" three hours previously. On admission he was considerably collapsed; the skin was cold and clammy; the countenance anxious; the pulse small, weak, and frequent. He had vomited several times; the vomited matter was dark in color, viscid, contained blood, gave a strongly acid reaction with litmus, and a very copious white precipitate with a solution of nitrate of silver. On examining the mouth the mucous membrane was of a whitish color, with here and there a red patch, showing where the epithelium had been removed. He complained of a burning sensation in the mouth, throat, and stomach; and pressure over the latter viscus caused pain. He did not complain of thirst, even when interrogated There was no diarrhœa or tenesmus. Solution of potash, freely diluted, was administered, and afterward lime-water and milk. Hot fomentations, sprinkled with laudanum, were applied over the stomach, and hot-water bottles to the feet. He passed a restless night, vomiting almost incessantly; got weaker next morning, and died collapsed seventeen hours after swallowing the acid. An examination of the body was made thirty-two hours after death. The mucous membrane of the œsophagus was highly congested in its upper half; the lower half was black in color, thickened and contracted; the veins stood out prominently, being filled with black blood. Just before its passage through the diaphragm there was a perforation in the posterior wall of the size of a shilling, the tissues around the opening being black and pulpy, and infiltrated with grumous material. The mucous membrane of the stomach and the first five inches of the

duodenum presented an appearance similar to that found in the lower half of the œsophagus. There was a perforation of the size of a florin in the stomach near its pyloric end, and a smaller one in the first inch of the duodenum. The contents of the stomach were found in the abdominal cavity, and the anterior edge of the liver was corroded by the acid. The peritoneal surface of the intestines was injected, and in some places covered with a thin layer of recent lymph. The action of the acid on the mucous membrane ceased about the middle of the duodenum; lower down the lining of the bowel was natural. The larynx and trachea were congested, the upper surface of the diaphragm was injected, and there was some commencing pneumonia in the base of the left lung.

THE BACILLUS MALARIÆ NOT CONFIRMED.—A correspondent of the *British Medical Journal*, writing from Rome, says, that another autumn has passed and no progress has been made at the Pathological Institute there, in confirming the former researches of Klebs, Tommasi-Crudeli, and Marchiafava, on the existence of a specific bacillus malariæ. The reason given for this apparent want of energy is, that there have been very few opportunities for continuing the investigations in true pernicious cases, and it is not thought worth while to do so in ordinary agues. Only three post-mortem examinations could be made this autumn at the Santo Spirito, on those dying of genuine pernicious ague. Specimens of the blood were taken in these cases, and cultivation-experiments are now being made with them; but, so far, without any result which can be published. It is quite true that, for the last two years, the number of cases of malarial fever has notably diminished. This is, at least, the common impression, though it rests on no more satisfactory basis than the statement of physicians in practice in Rome, and on the smaller returns of quinine, given gratuitously by the municipality, or sold at the pharmacies. Malarial fevers are not included in the list of diseases whose compulsory notification at the Capitol is supposed to be enforced on the medical men of the city. The real number of cases, therefore, occurring annually, cannot be known. The mortality returns confirm the prevailing idea to a certain extent, as, in 1882, all forms of malarial fever—pernicious, subcontinued, and remittent—caused 298 deaths; and this year, up to the end of October, 320; both figures being less than the average for a long series of years, if we bear the increase of population in mind. Still there would seem to be plenty of material to work on; but the pathologists hint that the causes of death, thus entered in the municipal returns, are not to be relied on. The malaria is the *bête noire* of the physicians, as well as of the citizens and visitors to Rome; and hence it is believed that many deaths are attributed to it as an easy way out of a difficulty in diagnosis. This is the explanation very commonly advanced, at least, for the occurrence of such certificates in the winter months, when deaths from acute malarial infection within the city are held to be almost unknown. Probably this is true of the well-to-do classes; and experience of practice among visitors confirms such a view, as no death from pernicious ague among these, during the season, has been registered for many years.

THE VALUE OF HYDROTHERAPY AS AN ANTIPYRETIC.—The study of fever has always occupied a large share of professional attention, and yet it will hardly be claimed that our knowledge of the febrile process is in any sense a complete and satisfactory one. Dr. Sassetzky (London *Lancet*, publishes the results of an elaborate study of the object. His attention was directed mainly to the intimate tissue-changes which occur in pyrexia. He also tested the effect of anti-febrile treatment on the assimilative processes. He found that invariably the cold bath diminished the elimination of nitrogen, and that a similar but far less marked diminution occurred in the cases treated by quinine and by salicylate. The quantity of urine was increased by each method, but to the largest extent by the bath. The assimilation of the solids and nitrogenous constituents of milk was improved under the bath treatment, as shown by the very marked diminution in the fæcal elimination of nitrogen; and the same fact was also noticed, to a less degree, by the other methods. The quantity of water ingested was diminished, and the loss of water by the lungs and skin was also diminished, except under the salicylate, when the cutaneous loss was increased. These are the results which show that, during the febrile state, the patient is in a far better condition under the antipyretic treatment than without it. So far as assimilation of solids in the food goes, the author declares that it is so improved by this treatment as to approximate the lower degrees observed in health. The main reason for this difference in the febrile organism with and without exposure to controlling influences, lies no doubt in the actual reduction of the temperature of the blood—pyrexia implying increased tissue-metabolism, tissue-degeneration, increased oxidation, and so on. All the phenomena of fever are linked together in an inscrutable way, some of them as causes, others as consequences, of the essential fact—the heightened temperature. Seek what explanation we may, it cannot be denied that the reduction of the excessive body heat is of good effect; and, as Sassetzky's research clearly points out, this result is shown in diminished metabolism, in lessened elimination of nitrogen and carbolic acid, and, as the demand for oxygen is lessened, the respiratory action falls, the action of the heart is improved, and the liability to circulatory disturbance in consequence of cardiac failure is mitigated, whilst the abeyance of the effects of the febrile process on the secreting organs permit of a more natural performance of their functions and a more ready assimilation of nutriment.

EXCESSIVE PRODUCTION OF SALIVA DUE TO IRRITATION OF THE THROAT.—Dr. J. M. W. Kitchen, of New York, writes: "The following case is unique in my own experience, and I have not seen a similar one described in my reading. Miss M——, aged thirty, making a short visit to New York, consulted me in regard to trouble with her throat, which had existed for some four years. She particularly complained of the presence of excessive secretion collecting in her throat, especially at night. The annoyance was sufficient to frequently awaken her from sleep. She had the peculiar cough that is used to clear the lower pharynx of secretion. Whenever she came to New York her trouble increased, and also whenever she 'caught cold.' Her home is in an inland dry climate. On examination a moderate amount of hyperæmia was to be seen in the nose and larynx, due to a recent cold. The pharynx presented the appearances usual in the first stage of chronic follicular pharyngitis; but the peculiar symptom noticeable was the presence in the throat of a large amount of rather thin but viscid frothy secretion. If any part of the throat was touched by any liquids or powders, such as zinc sulphate, spts. ammon. aromat., tannin., etc., the application was immediately followed by a gush of fluid from the whole mucous membrane of the throat. Most of it was produced anterior to the faucial arch. It would well up from the sulci at the sides of the base of the tongue. It would stream down from Steno's duct. It would exude from the anterior surface of the soft palate, and drop down from the uvula. I should judge that she would expectorate as much as fifty grammes in one minute following an application. Treatment was directed to the throat lesions during the few days she was under my care, in which time there was considerable improvement in the morbid appearances and symptoms. Having to return to her home, I ordered belladonna internally, and alkaline washes locally. Also daily out-of-door exercise, which she had been neglecting. She has since reported further improvement, but is still troubled with the excessive secretion. If any one has had a successful experience in a similar case, will he be kind enough to report it in THE MEDICAL RECORD?"

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NATIONAL HEALTH LEGISLATION.

THE Committee on Public Health of the House of Representatives have been very much occupied recently with discussions of subjects relating to the National Public Health Service. Judging by the number of printed pamphlets now before us, containing the remarks of those who appeared before the committee, the discussion took a wide range and developed a degree of interest in public health legislation by Congress quite surprising, and yet very gratifying. By these publications we are placed in a position to estimate very accurately the present condition of the national sanitary service, and the value and importance of the proposed changes in the laws relating thereto.

We will first notice a bill entitled, "A Bill to Protect the Public Health," now before the Public Health Committee. The purpose of this bill is to abolish the present National Board of Health, and establish a new board, to be styled "The United States Board of Health." This new board is to be composed of the Surgeon-General of the United States Army, the Surgeon-General of the United States Navy, and the supervising Surgeon-General of the Marine Hospital Service. The bill provides that "such board shall have full power to make such regulations as may be necessary for the government of the quarantine service of the United States and the protection of the public health; and all the power and authority now provided by law for the control, management, and regulation of the public health of the United States shall be, and the same are hereby, vested in said United States Board of Health." Sections 3 and 4 define special duties as follows:

"SEC. 3. That such sanitary investigations as may from time to time be necessary shall be conducted, under the direction of the said Surgeon-General of the Navy, at the Museum of Hygiene of the Navy Department, and full report thereof made to the said United States Board of Health.

"SEC. 4. That the United States quarantine service shall hereafter be conducted and managed by the said Supervising Surgeon-General of the Marine Hospital Service, acting under the direction of the Secretary of the Treasury."

Let us first consider what kind of an organization this new board is to supplant. The present Board of Health was organized under the following provision of an Act of Congress, approved March 3, 1879, viz.: "That there shall be established a National Board of Health to consist of seven members, to be appointed by the President, by and with the advice and consent of the Senate, not more than one of whom shall be appointed from any one State, . . . and of one medical officer of the Army, one medical officer of the Navy, one medical officer of the Marine Hospital Service, and one officer from the Department of Justice."

The composition of the present Board is therefore eleven members, seven of whom are representatives of as many different sections of the country, and four represent the allied departments of the Government at Washington. The wisdom of this plan of organizing a National Board, for which the country is indebted to one of its ablest sanitary legislators, is apparent. In harmony with our form of government the National Board of Health was made a representative body.

Seven members represent the varied sanitary conditions and interests of seven grand divisions of the United States, and four are to bring to its councils the knowledge and experience of the Army, Navy, Marine Hospital Service, and the Department of Justice. Practically the plan was and is fully realized. The seven original members were so distributed that the New England, the Middle, the Northwestern, the Western, and the Southern States are respectively represented by men of large experience in the administration of health laws. The four members from the Departments at Washington rank among the best officers of their respective services. Though the membership of the Board has changed since the first appointments were made, yet it is assuring to notice that the representative character of the members is maintained. The present Board numbers among its members one President of a State Board of Health; three veterans in municipal sanitation; an eminent sanitary engineer; two life-long workers in yellow fever epidemics; an expert chemist; the chief officer of the Bureau of Hygiene, and the Assistant Attorney-General. It will be seen that the plan of organizing the Board is well adapted to create a deliberative body having a wide and varied knowledge and experience in public health affairs.

Nor is its organization less effective for the prompt performance of executive duties. It has an Executive Committee, composed of four resident members and two non-resident. The resident members, a majority of the committee, are so near the Board rooms that a meeting can be obtained at a few minutes' notice, at which all ordinary business may be promptly transacted. So that, as a deliberative body, the Board combines representation of local sanitary interests by experts, with the special knowledge furnished by the departments, and as an executive body it acts with the intelligence of at least four trained officials, and the promptness of a single head.

In contrasting the plan of organization of the present National Board of Health with the proposed United States Board of Health, we do not hesitate to decide that the former is, in every respect, immeasurably superior to the latter. The fundamental idea of the former, as is seen, is the representation of the great sanitary districts of the country in the National Sanitary Council, while the latter is a revival of the bureaucratic autocracy so dominant in official circles at the national capital. It

is a matter of history that during the session of Congress at which the present Board of Health was organized the struggle of one bureau to absorb the service was so great and persistent as to threaten the defeat of all legislation. But, sustained by the almost unanimous sentiment of the sanitarians of the country, Congress then emphatically rejected all such ambitious and partisan schemes, and laid the present broad foundations on which a national public health service can, by patient labor, be constructed. The issues which this bill raises, are of vital importance, and should receive the most serious consideration, not only of the Committee on Public Health, but of all who are practically interested in building up and sustaining a sound and rational system of public health service in this country. We have advanced to the present degree of organization and completeness of that service by painful and laborious efforts in the field of sanitary legislation, and we should be very careful that no retrograde step is now taken by any ill-conceived and ill-advised measures. We believe that all such narrow, centralizing measures, of which this bill is the outcome, are fraught with great peril to the health organizations of the whole country; for our public health service—municipal, State, and national—is now practically one system, and, therefore, whatever injury is inflicted upon any one part injuriously affects the whole.

HEALTH MATTERS IN CONGRESS.

REFERRING to an article in these columns (see MEDICAL RECORD, page 406) on the temper of Congress with reference to a resolution reported back by the Public Health Committee of the House, providing for an investigation into adulterated food, drink, and medicine, and which was recommitted to the committee after an animated debate, it would seem that Congress is better disposed in preventing the import and export of adulterated compounds, than it is to their local control in the States.

The Senate Committee on Foreign Relations reported through Mr. Sherman, with amendments, Senate Bill 1,876, "providing for an inspection of meats for exportation, prohibiting the importation of adulterated food or drink, and authorizing the President to make proclamation in certain cases, and for other purposes."

Section 1 provides "that the Secretary of the Treasury may cause to be made a careful inspection of all salted pork and bacon intended for exportation, with a view to ascertain and determine whether the same is wholesome and sound for human food, and may authorize the proper officer of the customs to give an official certificate, clearly stating the condition in which such pork and bacon is found, and no clearance shall be given to any vessel having on board salted pork or bacon found, on such inspection, to be unwholesome for human food; but any pork or bacon may be exported to any foreign country without such inspection when it is proven to the satisfaction of the Collector of Customs that the same has been properly salted and packed more than sixty days prior to the date of the application for inspection, or manifest for exportation; and such Collector shall, in that case, certify to the fact that such meat was properly salted and packed more than sixty days before the date of such entry." This section requires three copies of any certificate issued by the Collector or Inspector, one to be filed in the Custom House, one attached to the service of each shipment, and the third to be delivered to the consignor or shipper.

Section 2 provides "that it shall be unlawful to import into the United States any adulterated or unwholesome food, or vinous, spirituous, or malt liquors adulterated or mixed with any poisonous or noxious chemical, drug, or other ingredient injurious to health. . . . . Any owner, agent of the owner, consignor, or consignee of the owner, or in privity with them, assisting in such unlawful act, shall be deemed guilty of a misdemeanor, and liable to prosecution therefor in the District Court of the United States for the district into which such property is imported; and on conviction, such person shall be fined in a sum not exceeding one thousand dollars, for each separate shipment, and may be imprisoned by the Court for a term not exceeding one year, or both, at the discretion of the Court."

Section 3 provides that any such imported adulterated articles shall be forfeited to the United States and destroyed, or returned to the importer for exportation from the United States, after the payment of all costs and expenses, and authorizes the Secretary of the Treasury to inspect such imported articles in order to ascertain whether the same have been unlawfully imported.

Section 4 authorizes the President to issue his proclamation, suspending the importation of such adulterated articles from any foreign country where there is good reason to believe such importation is about to be made, for such period of time as he may think necessary to prevent such importation; and during such period it shall be unlawful to import into the United States, from the countries designated in the proclamation of the President, any articles the importation of which is so suspended.

Section 5 authorizes the President, whenever unjust discriminations are made by any foreign State against the importation to or sale in such foreign State of any product of the United States, he may direct that such products of any such discriminating foreign State, as he may deem proper, shall be excluded from importation to the United States, and make proclamation to that effect. He may at any time revoke, modify, terminate, or renew any such direction as in his opinion the public interest may require. The provisions of this section shall expire on the 4th day of March, 1887, and shall no longer be in force.

The amendments reported back by the Committee are comprised in four sections:

Section 6 prohibits the importation of neat cattle, sheep, and other ruminants, and swine, which are diseased or infected with any disease, or which shall have been exposed to such infection within sixty days next before their exportation. Anyone knowingly violating this provision shall, on conviction, be punished by a fine not exceeding $5,000, or by imprisonment not exceeding three years; and any vessel or vehicle used in such unlawful importation shall be forfeited to the United States.

Section 7 authorizes the President, at the expense of the owner, to place and retain in quarantine all neat cattle, sheep, and other ruminants, and all swine, imported into the United States, at such ports as he may designate and under such regulations as he may prescribe, respectively, for the several classes of animals; and for this

purpose he may have and maintain possession of all lands, buildings, animals, tools, fixtures, and appurtenances now in use for quarantine of neat cattle, and hereafter purchase, construct, or rent such as may be necessary, and he may appoint veterinary surgeons, inspectors, officers, and employees to maintain such quarantine and provide for the execution of the other provisions of this act.

Section 8 prohibits all animals described in this act from being imported into any port where there is no quarantine station, and requires the owners to convey them by vessel to such port if brought into any port where no quarantine is established. The Collector of the Port is authorized to cause to be slaughtered all infected animals, or those exposed to infection so as to be dangerous to other animals. It provides for reimbursement to the owner where cattle, exposed to infection but not infected, are slaughtered.

Section 9 provides for careful inspection of all imported animals; provides for disposition of all food, litter, manure, clothing, utensils, and other appliances that have been related to infected animals on board ship, so as to be judged liable to convey infection. Also provides for the disinfection of all vessels engaged in the exportation of animals, and of all barges or other vessels used in the conveying of such animals intended for exportation to ocean steamer or other vessel, and of all attendants and their clothing, etc.; the expense of all inspection to be borne by the owner of the vessel on which such animals are exported.

THE ANTI-VIVISECTION DISCUSSIONS.

The medical profession of Philadelphia has been much agitated over the subject of vivisection. The American Anti-Vivisection Society has been at work there and, strange to say, has received support in its object from a few medical men, and also, we regret still more to say, from two of the medical journals. Original work in experimental science is just beginning in America; and it is very unfortunate that any medical men should assist in a movement designed to impede its progress.

We shall be told, of course, that the present agitation is not so designed, but that the aim is simply to restrict it within proper limits. But we do not know that a single fact has ever been presented to show that it is not now within "proper limits," so far as absence of cruelty is concerned. The actual limits, indeed, within which vivisection is now confined in America are so small that it takes the keen scent of a trained sentimentalist to detect them. And an "American Association" for the abolition of American vivisecting is very much like the assault of a phrenitic Jumbo upon a living skeleton. We perfectly appreciate the position of certain gentlemen favoring the movement, who say that popular sentiment will certainly in time demand the total abolition of vivisection, if "proper restrictions" are not put upon it in time. But there is certainly nothing in the present tendencies of public opinion to justify this alarm. Every year the triumphs of experimental physiology, pathology, and pharmacology are becoming greater, and every year the arguments in favor of the utility of vivisection are becoming correspondingly more unanswerable. To go no further for an illustration, the work of Pasteur and of Koch and their followers would have been impossible under a prohibitory vivisection law. As for a restrictive law, it killed physiological work in England, and it has yet to be shown that the advocates of anti-vivisection in this country will really stop short of practically total abolition here.

As a contemporary writer has said: "A stock company may immolate hundreds during the construction of a Panama railroad, a sovereign sacrifice thousands in the contest for a Crimean peninsula; the hue and cry only begins when the savant modestly begs permission to utilize a single life for the advancement of science."

In England, the establishment of a chair of Physiology at Oxford has given occasion for a renewal of the vivisection discussion there. Mr. Freeman, the historian, who kindly lectured to us Americans, a few years ago, for pecuniary considerations, has announced magisterially, that physiology is the only science that needs, on moral grounds, to be restrained. If he had known more about the subject, he would perhaps have, arguing from his standpoint, included pathology and pharmacology. However, his opinions pleased many. But the great argument which has been lately adduced by the English agitators is, that if it is wrong to torture a man for the benefit of science or humanity, it is also wrong to torture an animal. This reasoning is pronounced sound by many unbiassed persons. But if it is, then society is very inconsistent. For no one hesitates to incur a war where thousands of persons are tortured mentally and physically. Yet, what is the excuse for war, but the good of society or a part of society?

THE MOBILITY OF THE BRAIN.

It has long been known that the brain in normal conditions undergoes certain rhythmical movements. The powerful vessels at its base cause the cerebral mass to rise and fall with each systole and diastole of the heart. The brain also rises slightly with each expiration and sinks with inspiration. These phenomena are dependent, it is presumed, upon the presence of the cerebro-spinal fluid, since when that is withdrawn the movements cease.

M. Luys, in a paper recently read before the Académie de Médicine, states that the brain is subject to still other changes in position, dependent upon the attitude of the body. If a man is in the dorsal decubitus, or lies upon his side, or stands upon his head the brain undergoes certain corresponding changes in position in obedience to the laws of gravity. The movements take place slowly, and the brain is five or six minutes in returning to its first position.

From these anatomical data M. Luys deduces some striking conclusions of practical interest. He explains, upon the theory of these gravitating movements, the symptoms of vertigo and faintness which feeble persons experience when suddenly rising from a horizontal position. He asks if the pains of meningitis are not due to an interference with these normal movements. In cases of insanity he calls attention to the excitability and agitation which often come on when the patient lies down at night. As a practical point in mental hygiene M.

Luys advised against prolonged travel during most of the day, and urged the value of giving the brain the change produced by a horizontal position at night.

It is certainly something novel to be told that the brain is so loosely set in its case that one must be careful of his bodily attitudes. We believe also that M. Luys bases his view chiefly, if not entirely, upon a study of the cadaver, in which the conditions are far from being the same as in the living subject.

THE QUESTION OF DISCUSSING THE CODE.

Our esteemed colleague, Dr. N. S. Davis, has expressed the opinion that the pledge exacted last year at the meeting of the American Medical Association should be renewed again in exactly the same form at the coming session in May. This means that there will be an attempt, at least, to exclude all members who do not believe that the present Code of Ethics needs no change.

Such a policy would be unjust, unwise, and probably illegal.

It would be unjust because the enforcement of the pledge may exclude gentlemen who are legitimately entitled to a voice in the meeting, gentlemen who are willing to obey, but not to "use their efforts" for the perpetuation of the present Code.

It would be unwise, because the action proposed will excite just censure of the Association from all who desire fair play. There is unquestionably a majority of the profession who think that the Code needs some modification to adapt it to the needs of the present day. The letter of Professor Bowditch, of which we published a part last week, showed one phase of this sentiment. While we cannot give the exact figures, it is safe to assert that three-fourths of the medical journals of the country have intimated that the Code can be improved or needs improvement.

We repeat also, what we have said before, that from every section of the country letters have been received expressing sympathy and encouragement with the movement inaugurated in New York. It would be foolish, as it will eventually be useless, to ignore this sentiment.

Finally, it may be reasonably doubted whether a few members of the American Medical Association have a right, technically or morally, to enforce such a pledge as is proposed.

THE ROOSEVELT COMMITTEE AND THE BOARD OF POLICE SURGEONS.

The Roosevelt Committee, which has been investigating the Police Department of this city, has made one of its most serious charges, we regret to say, against the Examining Board of Police Surgeons. Every applicant for position on the police service is obliged to submit to a physical examination before the Board of Surgeons. Unless he comes up to a certain standard, he is, theoretically, rejected. According to the Roosevelt report, however, practically if a candidate has sufficient influence, he can get by the board upon a re-examination. The Committee say:

"Men rejected at one examination for insufficient height, weight, or girth of chest, would at the next show an increase in the necessary particulars that would seem hardly explicable on other grounds. The cases of applicants suffering from organic troubles were even more remarkable. An applicant twice rejected for syphilis was decided to be cured on his third trial; another with varicose veins as speedily recovered. A man was rejected for hernia, but was reported perfectly sound when his case came up again. Another had varicocele on his first trial, but not on his second, according to the report of the board; although the head surgeon actually indorsed on the back of his last report that the man still had varicocele, and was not cured. Mitral insufficiency in another case was quite as temporary a defect, and near-sightedness, obesity, and defective physical formation, all proved equally ephemeral disabilities. In other words, the examinations, in many instances, were merely farcical."

The Board of Police Surgeons is composed of Dr. M. H. Henry, President, and Drs. F. L. Satterlee, S. G. Cook, Charles Phelps, Wm. A. Varian, John H. Dorn, Geo. Steinert, P. W. McDonnell, S. B. W. McLeod, Wm. H. Ensign, S. Waterman, F. M. Purroy, S. K. Lyon, B. F. Dexter, W. F. Fluhrer, A. W. Maclay, David Matthews, R. H. Voorhees, and B. Wood. These have all been known as reputable gentlemen, and several are surgeons of deserved eminence. It is unfortunate that the asserted dereliction of a few should have thus thrown something of a cloud over the examining board.

News of the Week.

Italian Professorships.—M. Vincenzo Cervello has been appointed Professor Extraordinary of Materia Medica and Therapeutics at Palermo. M. Ughi Odoardo has been made Professor Extraordinary of Clinical Medicine at Parma. Dr. A. Paci, one of the editors of *Lo Sperimentale*, has been made Professor Extraordinary of Surgical Pathology at Pisa.

The Bill Legalizing Diplomas heretofore granted by the United States Medical College has passed the Senate.

Suicide of a Physician.—It is announced that Dr. John Tobin, a promising young physician of Cleveland, O., committed suicide on April 14th by taking morphine. Dr. Tobin was educated for the Catholic priesthood, and was one of the most cultured men in the city. Instead of entering the priesthood he began the study of medicine, and graduated from Wooster Medical College with the honors of his class.

Kentucky State Board of Health.—The Governor of Kentucky has appointed two homœopaths members of the State Board of Health.

The American Medical Association meets at Washington, D. C., on Tuesday, Wednesday, Thursday, and Friday, May 6, 7, 8, and 9, 1884.

The Medical Department of the University of Louisiana held its fiftieth annual commencement on March 22d, and graduated a class of sixty-two.

The Louisiana State Medical Society will hold its annual session at Baton Rouge on May 21st.

The Kentucky State Medical Society has changed the date of its annual meeting to June 3d.

MEDICAL VIENNA.—At the meeting of the Royal Society of Physicians, March 14th, Professor Weinlechner showed a child with "congenital dislocation of the femur" forward—a rare form of luxation which he had seen only three times. Professor Billroth showed a young man from whom, eight years before, he had removed the entire humerus. Although the periosteum was retained yet there was no regeneration of bone whatever. Despite this, by means of an apparatus, the patient could use his arm very well indeed, and was very glad it had not been removed.

Billroth alluded to the fact that in some cases the trophic nerves seemed to be involved and there was no bone regeneration. In the same way two classes of bone and joint affections are met with, one in which the trophic nerves (of muscle and joint) are involved, the other in which they are not.

Dr. Wick showed specimens taken from a man who had died from glanders.

Professor Toldt has been called to the chair of Anatomy in the University of Vienna.

Hofrath Dr. Ritter v. Schmerling recently celebrated the fiftieth anniversary of his professional life.

On March 21st the Royal Society of Physicians celebrated its thirty-seventh anniversary. Professor Ludwig gave a review of the work of the Society during the past years. The librarian read a report showing the need of more room for the growing library.

The Society voted to entertain Dr. Koch, who expected to stop a few days in Vienna on his return from India.

Professor Billroth was elected President.

THE LOUISIANA BOARD OF HEALTH.—The Louisiana National Board of Health was reorganized on April 12th, Dr. Joseph Jones voluntarily retiring from the presidency thereof after four years of arduous service, Dr. Joseph Holt was chosen his successor. Resolutions were adopted offering and inviting courtesies and reciprocal communication with the health bodies of all the States, and declaring that it is its fixed purpose to apply quarantine restrictions against all ports where contagious or infectious diseases exist, to the limit of the law, and if necessary it will advise the total suspension of all communication with such ports while so infected. Also that while guarding with sleepless vigilance the outlets of the Mississippi River, the board is not unmindful of the dangers that threaten from the rear.

MEDICAL BERLIN.—At three successive sessions of the Berlin Medical Society, the last being on March 12th, the subject of tuberculosis was animatedly discussed.

Dr. Benda opened the debate with a paper upon the "Relation of Tuberculosis to the Organs of the Body." As the result of a series of experimental investigations carried on at the Gottingen Pathological Institute, he claimed that tuberculosis was an embolic disease, due to the blocking up of blood-vessels with bacilli. And he proposed to substitute the term "bacillæmia" for that of acute general tuberculosis. Dr. Baginsky disagreed with Benda, believing the tubercle to be a thing *sui generis*, not a harmless embolus. Professor Hirschberg also believed that the tubercle was the product of a specific disease-germ. At the next session, on March 5th, Dr. Fränkel read a paper upon the "Diagnostic and Prognostic Significance of the Tubercle Bacillus." He believed that the discovery of the tubercle-bacillus in the sputa always signified that a bacillary destruction-process was going on in the lungs. If not found, there might still be bacilli in the lungs, but there was no destructive process present. Dr. Fränkel did not find that the number or size of the bacilli furnished any safe guide in prognosis.

At the meeting of the Society March 12th the discussion upon tuberculosis was continued.

P. Guttman discussed the various coloring methods and Virchow argued against Benda's theory of bacillary emboli referred to above. A number of pathological specimens were shown. One was that of a stone removed from the bladder by Dr. Landau. In the centre was a thread which, it is stated, was left in the abdomen after an ovariotomy performed several years before!

MEDICAL PARIS.—At the meeting of the Académie de Médecine, March 18th, the discussion upon lunacy legislation was finally brought to an end. At the Société des Hôpitaux, M. Féréol showed a patient who had suffered from "pulsatile pleurisy." He had been subjected to the operation of Estlander, and was completely cured. M. Du Castel read a paper upon the "Clinical signs of Sclerosis of the Lungs." The Society has decided to set apart a day for the discussion of the subject of the "Prevention of Tuberculosis." At the meeting of the Académie de Médecine, March 25th, M. Le Roy de Mericourt reported a second case of "chromidrosis," or colored sweating, in a child of twelve years. In the layers of the epidermis he had detected small red granules. He believed that it was a veritable case of transudation of coloring matters. M. Hayem read an article upon "Peritoneal Transfusion." He had injected the blood of a kid into the peritoneum of a dog, and very soon found the kid's red-blood corpuscles in the blood of the injected animal. He believed that peritoneal transfusion was equivalent to venous transfusion. M. Bechamp read an article upon the "Molecular Granulations of the Brain, and Hydrophobic Virus." M. Luys read an article upon the "Movements of the Brain in Different Attitudes of the Body." His views are referred to elsewhere. M. Delthil read a note upon the "Treatment of Diphtheria by Inhalations of the Vapor of Coal-tar and Turpentine."

MAKING OUT A BLACK LIST.—We learn from the daily press that the Richmond County Medical Society called a special meeting last week to act upon a resolution to the effect that any member of the society shall be prohibited from attending any person who is indebted to any other member of the society when such member shall have received notice of such person's indebtedness to a fellow-member, unless the case be accompanied by a receipted bill or permit for attendance from the protesting physician, the cash in hand, or an order from the Superintendent of the Poor or a Justice of the Peace or other authority competent to make the order collectible. Penalties are prescribed for those who attend the people thus put on the doctors' black list. The physicians of Staten Island have signed a remonstrance against the action of the telephone company that recently bought out the telephone system on Staten Island, because the company has issued orders that hereafter no person can use the

telephone of a subscriber to call a doctor, however urgent the case may be, without first paying a toll of fifteen cents. As most of the doctors have telephones to facilitate quick communication with patients, they express indignation at the new plan.

Dr. D. Hayes Agnew has resigned from the staff of the Pennsylvania Hospital.

British Medical Association.—The fifty-second annual meeting of the British Medical Association is fixed to take place at Belfast on July 29th next, and three succeeding days, under Dr. James Cuming, of Belfast, the President-elect. Sir Andrew Clark has consented to deliver the address on medicine, and that on physiology will be undertaken by Professor Redfern, while Dr. G. H. Kidd will give the address in obstetrics.

Professor Allen Thomson, formerly Professor of Anatomy at Glasgow, died on March 21st. He was a fellow of the Royal Society and joint editor of "Quain's Anatomy."

The Medico-Chirurgical College, of Philadelphia, held its annual commencement on April 3d, and graduated four students. It is expected that the college will be reorganized during the coming summer.

Professor Chandler.—The Secretary of State has notified the Secretary of the Treasury that Professor C. F. Chandler, of Columbia College, New York City, has been designated as an Honorary Commissioner of the United States at the International Sanitary Congress, to be held at the Hague, August 21 to 27, 1884.

Yellow Fever.—The monthly report from Havana for March shows an increase in the prevalence of yellow fever, and a corresponding increase in the cases of "pernicious fever," which Medical Inspector Burgess states is carelessly and loosely diagnosed by the physicians, and which he is nevertheless confident includes not an insignificant proportion of true yellow fever cases.

International Health Exhibition.—A somewhat novel feature in connection with the exhibition this year will be the establishment of a library and reading-room, for which the Executive Council have assigned space in a large double room in the Albert Hall, overlooking the Conservatory. Steps have been taken to secure a representative collection of works on vital statistics; of reports and regulations relating to public health; of regulations with reference to injurious trades and of works thereon; of reports, statistics, and other works on the science of education. Foreign powers have been invited to lend their co-operation in this effort to create an international library of works of reference bearing on the two divisions of the exhibition, and several responses have already been received. India and the colonies have also been asked to contribute toward the same end. Publishers and authors have likewise been invited to forward copies of their works. In addition to the library of reference, there will be a reading-room, to which the current numbers of periodical publications of a sanitary or educational character will be admitted. All books and periodicals sent to the library and reading-room will, under certain regulations, be arranged for the use of visitors, and not merely for exhibition. The books will be submitted to the jurors, and a full catalogue will be issued. All parcels for the library and reading-room should be addressed, carriage paid, to the Secretary of the Library Sub-Committee, Royal Albert Hall, London, S. W.

The Association of American Medical Editors.—The annual meeting of the Association of American Medical Editors will be held in Washington, May 5th, at 8 P.M., in Medical Hall, southeast corner Sixth and F Streets. The Annual Address will be delivered by President Leartus Connor, M.D., on "The American Medical Journal of the Future, as Indicated by the History of the American Medical Journals in the Past." Dr. N. S. Davis will open the discussion on, "How far can Legislation Aid in Elevating the Standard of Medical Education in this Country?" in which Dr. A. B. Palmer, Dr. Henry O. Marcy, Dr. L. S. McMurtry, Dr. C. H. Hughes, Dr. Frank Woodbury, Dr. William Brodie, Dr. A. N. Bell, Dr. William B. Atkinson, Dr. W. C. Wile, Dr. W. R. D. Blackwood, Dr. Henry Leffmann, and Dr. Deering J. Roberts will take part. All members of the profession, especially journalists and authors, are invited to be present and take part in the meeting.

American Surgical Association.—The next meeting of the American Surgical Association will be held on April 30, and May 1, 2, and 3, in the Lecture Room of the National Museum, Washington.

The Manufacture and Sale of Oleomargarine.—The recent developments before the Legislative Committees in this city relative to the manufacture and sale of oleomargarine and the attempts which are being made to prohibit its manufacture, render of considerable interest a decision in the United States Circuit Court for the Western District of Missouri. The Court said "the statute of Missouri providing for the punishment by fine and imprisonment of any person who shall manufacture 'out of any oleaginous substance, or any compounds of the same, other than that produced from unadulterated milk or cream from the same, any article designed to take the place of butter or cheese produced from pure unadulterated milk or cream of the same,' or who shall sell or offer for sale the same as an article of food, is not in violation of any provision of the Constitution of the United States; and this, although the article is manufactured under a patented process. The sole object and purpose of the patent laws is to give to the inventor a monopoly of what he has discovered. What is granted to him is the exclusive right, not the abstract right, but the right in him to the exclusion of everybody else. He is not authorized by the patent laws to manufacture and sell the patented article in violation of the laws of the State. His enjoyment of the right may be modified by the exigencies of the community to which he belongs, and regulated by laws which render it subservient to the general welfare, if held subject to State control."

Our French Admirer Again.—At last the *Moniteur de la Policlinique* has touched us to the quick. The learned and lovable editor has called us red-skins and cocoa-nuts and has said that we were without wit, intelligence, or any of those illuminating qualities which characterize our French colleagues. This we do not mind, however, knowing the gentle ways of the third-rate Paris-

in editor. The last issue of the *Policlinique* attacks us again, however, and ends by saying: "After all, as *physicians of the Faculty of Philadelphia*, you are not perhaps any stronger in Greek than in *clinique*. We excuse you. *Non licet omnibus.*" This is really too much. We can admit everything as regards the cocoa-nuts and similar trifles; but we protest against being placed and published in Philadelphia. We trust that our contemporary will correct an error calculated to do us some injury. We would state here for his edification that Philadelphia and New York are different localities. Philadelphia being a great inland city, New York a quiet suburban town. *Veritatem dies aperit!*

American Medical Association.—Delegates and permanent members desiring to attend the next meeting of the American Medical Association, at Washington, D. C., May 6th, are requested to address Dr. D. W. Prentiss, Washington, D. C., for particulars regarding reduced railroad fares to and from that city.

Death of Dr. Pliny A. Jewett.—Dr. Pliny Adams Jewett, one of the leading physicians in New Haven, died in Providence, R. I., April 10th, of pneumonia. Dr. Jewett was born in Hampton, Washington County, this State, in 1816. He received his education in Trinity College, Hartford, Conn., and afterward took a medical course at Yale. He was graduated from the latter institution in 1839, and went to Paris to further perfect his studies. He afterward settled in New Haven, and with the exception of two years' residence in Aiken, S. C., he has since lived there. For forty years Dr. Jewett had been attending surgeon at the New Haven Hospital, and he was for twelve years Professor of Obstetrics in the medical department of Yale. During the war he was surgeon of volunteers, and was afterward promoted to a colonelcy for meritorious services. Dr. Jewett organized Knight's United States Army General Hospital at New Haven, and he had charge of it from 1862 to 1865. He was a member of the Connecticut Medical Society for thirty-seven years, serving as its President in 1876. He was also an honorary member of the New York Medical Society.

Notice to the Ophthalmologists, Otologists, and Laryngologists of the American Medical Association.—Dr. J. L. Thompson, of Indianapolis, Ind., Secretary of the Section on Ophthalmology, Otology, and Laryngology, writes that, owing to a misunderstanding, no invitations have been sent out for papers to be read at the coming meeting of the Association. He now earnestly urges gentlemen to prepare papers for the section.

The Question of Midwives.—At the meeting of the Society of Medical Jurisprudence, April 10th, a paper was read by Dr. J. Henry Fruitnight on "The Status of the Midwife, Legal and Professional." Dr. Fruitnight said that his observations had satisfied him that there were a great many irresponsible and unfit women engaged in the practice of midwifery. The tenor of the paper was against midwives, but in the discussion that followed, some arguments were advanced in their favor. The conclusions drawn by Dr. Fruitnight were that the practice of midwifery by midwives should either be suppressed or that they should be better qualified and held responsible. The paper was discussed by Drs. H. J. Garrigues, A. W. Warden, J. C. Peters, A. Jacobi, R. Newman, and Dr. Harwood. A resolution was adopted at the close of the discussion condemning the proposed legislation in behalf of a college of midwifery, which is now seeking incorporation.

The Alabama State Medical Association held its annual meeting at Selma, beginning April 8th.

The Medical Society of the State of Tennessee held its annual meeting at Chattanooga, beginning the session on April 8th.

Jefferson Medical College.—The fifty-ninth annual commencement was held on March 29, 1884. Degrees were conferred on 215 students.

The Mississippi State Medical Association held its annual meeting at West Point, on April 2d.

The Memphis Hospital Medical College held its annual commencement on February 29th, and graduated a class numbering forty-three.

The Kansas City Medical College held its fifteenth annual commencement on March 5th.

The Medical Department of the University of Kansas City, held its third annual commencement on March 13th, graduating a class of fourteen.

The Valedictory of Professor Alfred Stillé.—Dr. Alfred Stillé delivered his valedictory to the students of the Medical Department of the University of Pennsylvania, on Thursday of last week. He said that, throughout the twenty years he had occupied his chair, the one principle that had governed his instruction had been to build up the walls of the students' education securely with the one hand, and with the other to defend them against the intrusion of hypotheses and unsubstantial theories, the most dangerous of all their enemies, because the most seductive to the young and ardent mind.

Dr. J. W. Holland has been elected Professor of Theory of Practice of Medicine in the University of Louisville, in place of the late Dr. Yandell. Dr. H. A. Cotell, editor of the *Louisville Medical News*, has been made Professor of Medical Chemistry and Microscopy.

More "Ephemeral" Misrepresentations.—Dr. Squibb is not content with hurrying into print misstatements about the County Medical Society. He presents again unfairly the status of the profession with regard to the Code. The question put by the Old Code party was not a direct query: "Do you or do you not believe in the Old Code?" It was ingeniously put so as to involve another issue: "Do you favor a re-enactment of the Old Code until the National Association has taken some action?" The National Association having turned away the New York delegates, and refused to allow any discussion on the subject of change, a very large number of those whose names are on the Old Code list are really now in sympathy with the New Code and its advocacy of individual rather than corporate morality. Dr. Squibb will kindly state things more fairly.

Reports of Societies.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, March 26, 1884.

GEORGE F. SHRADY, M.D., PRESIDENT, IN THE CHAIR.

WEIGERT'S METHOD OF STAINING THE NERVES AND CENTRAL NERVOUS SYSTEM WITH ACID FUCHSIN.

DR. T. MITCHELL PRUDDEN showed a series of microscopic preparations, histological and pathological, which illustrated the above method, and said: "Although this method was announced more than a year ago, it has not, I think, received the attention which its merits deserve. Its value for the demonstration of pathological as well as normal structures justifies its presentation before this Society. The staining agent is the so-called acid fuchsin, which is rosanilin, in which one atom of H is replaced by the radicle SO_3H. That is, it is a sulphate of rosanilin. It thus belongs to the class of acid anilines, and it is not a nucleus nor a bacteria stain. It stains tissues diffusely, stains all the structural elements alike. The color is removed by solution of caustic potash, but as the nerve-fibres hold the color more tenaciously than other elements, we can obtain, by stopping the decolorizing action of the alkali at the proper moment, a sharp differentiation of the nerve-fibres. The nerve-cells are not especially stained by it. Thus far only one particular preparation of acid fuchsin has been found to give good results. This is prepared at the Baden anilin factory and is known as acid fuchsin S.

"Weigert was unable to get good results from the preparations of any other house, and my own experience is the same. This preparation may be obtained in small quantity from Dr. Grübler, 17 Dufour Street, Leipzig. I will briefly summarize the details of this method of staining:

"The tissues must be carefully hardened in solutions of bichromate of potassium or in Müller's fluid. Alcohol should only be used, if at all, at the end, to complete the hardening. Thin sections are stained from one to twenty-four hours (it is not easy to overstain) in a saturated aqueous solution of the fuchsin. The decolorization and differentiation is accomplished by a saturated alcoholic solution of caustic potash diluted with alcohol in the proportion of one to ten. The exposure to the alkali is the delicate part of the operation, for too long an exposure will remove the color from the section altogether. In most cases it should remain not longer than five or six seconds, being moved to and fro in the fluid. The color will be discharged into the alkali. It should be now immediately transferred to pure water, which should be changed two or three times to insure complete removal of the potash. The section may now be dehydrated with alcohol, cleared up by oil of cloves, and mounted in balsam. Or a double staining may be obtained by the use of hæmatoxylin before dehydration. The outlines are sharpened and the color somewhat intensified by dipping the section after removal of the alkali for an instant into a solution of hydrochloric acid and water, 1 to 5. In such preparations the connective-tissue elements have a diffuse gray or violet color and their structural details are not distinct, but if hæmatoxylin be used the nuclei are stained purple. Although not especially stained, the nerve-cells may be seen with great distinctness. The nerve-fibres, on the other hand, stand sharply out in light or deep red. It seems to be the axis cylinders and portions of the myelin which are stained and certain of the non-medullated fibres of the gray matter. It is difficult to speak in praise of this method in terms which will not seem extravagant to those who have not seen its results. It is not only the exquisite distinctness with which nerve-fibres and bundles, which we have been accustomed to see more or less clearly by the older methods, stand out against the diffusely stained background, but the marvellous wealth of finer and coarser fibres of whose existence the ordinary methods give but faint intimation, which seem to promise for this method the most useful results. The qualities which render it useful in normal structures recommend it for the morbid also. I have found it particularly useful in staining the cord in locomotor ataxia, in secondary degenerations, etc., and also for determining and demonstrating the presence of nerve-fibres in tumors and other structures in which they are not present in large numbers. In the peripheral nerves it furnishes a most admirable means of demonstrating the axis cylinder.

"As verbal descriptions of the results of such a method are at best not very convincing or instructive, I have taken the liberty of sending in a somewhat imposing array of microscopes in which you may see a variety of preparations made in this way. Most of these specimens were prepared nearly a year ago, and have retained their colors with little change. It is to be regretted that you may not see them by sunlight, for the color and outline are much more distinct than by artificial illumination.

"I have laid out transverse and longitudinal sections of the normal spinal cord with both single and double stain; sections of the cord in posterior spinal sclerosis and secondary ascending gray degeneration, longitudinal section of the sciatic nerve, and a section of a false neuroma showing scattered nerve-fibres running through it, and standing out sharply in the unstained connective tissue. I would especially commend, for the exquisite delicacy, distinctness, and intricacy of the picture, the transverse section through the human medulla oblongata at the level of the olivary bodies."

Weigert's original papers are in the *Centralblatt der Medicinische Wissenschaften*, October 21 and November 18, 1882.

DR. H. HEINEMAN presented a specimen of

COLLOID CANCER OF THE PERITONEUM,

and also a specimen of

SACCULATED EMPYEMA.

DR. JANEWAY had seen two cases of sacculated empyema this year. One was a case in which there were several sacs following pneumonia, and where his house-physician at Bellevue Hospital introduced the aspirator needle and drew off about four ounces of pus from one sac, then four ounces from a cavity below, and nearly four ounces from still another part of the pleural cavity.

In the other case it was more difficult to explain the origin of the condition. There was hydro-thorax limited to the lower tube, which disappeared after a short time, and the patient recovered. The cavity evidently had quite a limited area, with free evacuation through the bronchi.

Last week, also, he made an autopsy in a case of suddenly developed hydro-thorax, which was found to be due to a communication from a bronchiectatic cavity in the lower lobe through the interlobar fissure by a wound into the pleural cavity. In that case the pus was very offensive. The man died of sepsis from erysipelas following aspiration, and of the pus in his chest.

It is very difficult to say exactly how such a condition originates with an extremely good history.

DR. HEINEMAN said that fetid pus was not infrequently met with in cases of empyema in which there was no communication with a bronchus, and in cases of general pyæmia, and in which the fœtor gave rise to the suspicion that there was gangrene.

DR. JANEWAY said he had seen such cases.

DR. FRANK FERGUSON presented

A HORSE-SHOE KIDNEY,

removed from the body of a man who died in New York Hospital on January 18, 1884, the day of his admission. He had been suffering from extreme dyspnœa when admitted into the hospital, and said that for a few days past he had had slight difficulty with his breathing.

He had been using opium for the last five years, and at the time of his death used fifteen grains daily.

His dyspnœa was relieved for a short time by the administrations of digitaline and morphine. His breathing was superficial and labored; temperature 101° F.; and urine contained thirty per cent. to the column of albumen. Suddenly his respiration and heart action stopped, and ten minutes after the rigor mortis was well marked.

The real interest in the case, aside from the anomaly, was the fact that the entire organ showed well marked parenchymatous nephritis, which doubtless was the chief factor in causing the patient's death.

Dr. Ferguson also presented a specimen of

CONGENITAL ABSENCE OF THE LEFT WING OF THE DIAPHRAGM.

A large portion of the intestines and stomach were in the left pleural cavity.

LARGE HEMORRHAGE INTO THE PONS.

Dr. Ferguson also presented a brain with the following history. It was removed from the body of a Russian sailor, sixty-seven years of age, who was brought to the hospital in an ambulance. His friends said that he had been sick, "paralyzed," for twenty-four hours, but that he worked out-doors the afternoon previous.

On admission patient was comatose, his surface was dry, his muscles were relaxed; his pupils were equal, contracted, and irresponsive to light. Deep and superficial reflexes were preserved. Bladder was distended with urine, which when drawn was found to contain albumen ten per cent. Temperature was 100°, pulse 80, respirations slow and stertorous. Both legs and arms responded to stimulation made by pricking them with a pin. One-eighth grain of nitrate of pilocarpine, hypodermically, and hot air both failed to produce diaphoresis.

11 P.M.—Patient became partially conscious, and slowly raised his left hand to his mouth, and on being shown a glass of water and asked if he wanted it, feebly bowed his head and closed his eyes in affirmation. Water was given him, and he seemed easier after it. He died at 3.20 the following morning.

The brain showed a hemorrhage into the pons, which had escaped into the fourth ventricle also, and the pia mater was so raised as to perfectly fill the space between the medulla and the lobes of the cerebellum. There was almost complete destruction of the pons. The kidney was the seat of chronic diffuse nephritis far advanced.

Dr. Janeway remarked that the statement frequently seen in text-books that the presence of albumen in the urine would serve to distinguish between uremic coma and the coma from hemorrhage into the brain was altogether erroneous, as had been proved many times by post-mortem examination. He thought the presence of albumen under these circumstances served to puzzle rather than make clear the question of diagnosis.

Dr. Ferguson asked Dr. Janeway if he had seen frequently hemorrhage into the pons with chronic diffuse nephritis.

Dr. Janeway said he had seen several cases.

Dr. Van Gieson wished to reiterate what he had before stated to the Society with regard to diagnosis vibrating between coma from disease of the kidney and from hemorrhage into the brain. He thought that in most cases of coma from Bright's disease the preagonistic temperature was elevated, whereas in hemorrhage into the brain the temperature was not nearly so likely to be elevated. That had been his experience, based upon quite a number of cases.

Dr. Janeway remarked that the primary temperature of cerebral hemorrhage had been said to be depressed, in severe hemorrhage into the pons, perhaps persistently so. Whether or not there were exceptions was difficult to say. Whether or not there was always primary depression of temperature with hemorrhage, or whether it might not occur with paralysis from some other cause, he had not been able to settle. The temperature in uræmia may be either depressed or elevated, and different statements have been made by different observers on this point. The preagonistic temperature goes high in hemorrhage into the brain, and may not be especially elevated in kidney disease. One thing which would aid materially in studying the question was the primary temperature within the first few hours.

Dr. L. H. Sayre presented, in behalf of Dr. Lewis A. Sayre, sections of liver, lung, kidney, and of the aorta, together with a portion of new growth of fibrous tissue removed from the body of a man, with the following history:

CASE OF ASCITES FROM COMPRESSION OF THE LIVER AND PORTAL VEIN BY CHRONIC PROLIFERATIVE PERITONITIS; AND GENERAL ANASARCA FROM HYPERTROPHY OF THE HEART, AND GENERAL ATHEROMA OF THE ARTERIES, WITH CHRONIC NEPHRITIS—TAPPED DURING SIX YEARS AND FIVE MONTHS 187 TIMES, REMOVING 19,256 OUNCES OR 1,203$\frac{5}{16}$ POUNDS, BEING MORE THAN SIX TIMES THE ENTIRE WEIGHT OF THE PATIENT.

H. H——, aged sixty-six, a very large and robust man, six feet three inches high, and an average weight for many years of two hundred and thirty pounds. Always enjoyed perfect health until 1876, when he had a very severe attack of pleuro-pneumonia of both sides, which for some time threatened to be fatal. He finally recovered, but his respiration was never perfect from that time. In the winter of 1878 he slipped on the stone steps at his front door, which were covered with ice, and struck very heavily in the middle of his back, on the edge of the step, both feet having glided suddenly from under him. The concussion was very violent, and was followed in a few hours by almost complete paralysis of the lower extremities and the bladder. He recovered the control of his bladder in about three weeks, and almost perfect use of his legs a few weeks later. In the summer of 1879 (July), while swinging in a hammock between two trees, the rope broke near his head, and he dropped suddenly upon his shoulders, with his feet suspended in the hammock, causing a sharp curve in his back. This fall was followed by intense pain very near the seat of his former injury, and extending through to the pit of the stomach (as he described it), and it finally extended all over his abdomen, giving symptoms of a diffuse peritonitis, and all on either side of the thorax, similar to an intercostal neuralgia. These pains never entirely subsided, but required the use of hypodermic injections of morphine once or twice daily during the remaining six years of his life.

His nervous system became greatly impaired, being many times almost hysterical.

Dr. Allen, of Rutland, Vt., who saw him in consultation with me, was of the opinion that some injury had been done to the solar-plexus or great sympathetic nerve.

In August after the last accident his limbs began to swell, and his abdomen showed evidence of peritoneal effusion. This gradually increased until his respiration was interfered with and I tapped him on September 29, 1878, for the first time, removing 240 ounces, or 15 pounds. I tapped him next on November 27, 1878, removing 416 ounces, or 26 pounds. From that time on he was tapped at varying intervals, as necessity required, until the time of his death, which occurred on February 17, 1884—in all 187 times.

The entire amount of fluid removed was by accurate measurement 19,256 ounces, or 1,203$\frac{5}{16}$ pounds, being more than six times the entire weight of his body at any time during that period. His urine was examined repeatedly by Professor Austin Flint, Jr., and by Dr. Allen. Only once or twice was a slight trace of albumen found, and nothing else abnormal except deficiency in quantity. The average discharge of urine per twenty-four hours was,

in 1879, 35½ ounces; 1880, 33 ounces; 1881, 25 ounces; 1882, 23 ounces; 1883, 18 ounces; 1884, 20½ ounces in month of January and 10½ ounces in month of February.

During the last forty-eight hours of his life he only passed 7 ounces, and died of uræmia on February 17, 1884.

The post-mortem was made, twenty-four hours after death, by Dr. W. H. Welch, and is appended to this report.

POST-MORTEM EXAMINATION.

Exterior.—Moderate emaciation. No œdema of lower extremities. Abdominal cavity distended with fluid. Scars of old punctures in median line below umbilicus.

Brain and spinal cord.—Not examined.

Peritoneal cavity.—Contains about 3,000 c.c. of clear, yellowish serum. The coils of intestine and other abdominal viscera are in great part united firmly to each other and to adjacent parts by old fibrous adhesions. These adhesions are most abundant in the upper part of the peritoneal cavity, so that the bulk of the fluid lies in the lower and lateral parts of this cavity.

The liver is enveloped in a dense, uniform, white capsule of fibous tissue, averaging 6 to 8 mm. in thickness. The anterior surface of the stomach is firmly adherent to the inferior surface of the liver. The gastro-hepatic omentum is thickened, fibrous, and retracted, particularly around the vessels in its right border. The great omentum is drawn up into a thick, fibrous mass, stretching transversely across the omentum at about the level of the umbilicus. The spleen, like the liver, is surrounded with a thick layer of dense fibrous tissue, and is firmly bound down by old adhesions.

A similar fibrous thickening involves elsewhere a great part of the visceral and parietal layers of the peritoneum, and has matted together the abdominal viscera so closely that these can be removed only in mass. (There are no tubercles in the peritoneum.)

Pleural cavities.—There are old adhesions between the pleural surfaces upon both sides. A growth of dense, white, glistening fibrous tissue, analogous to that on the peritoneum, involves the diaphragmatic and adjacent costal pleuræ. This part of the pleura is in places nearly 1 ctm. in thickness. It cuts like gristle. The fibrous growth extends on both sides 4 ctm. upward from the diaphragmatic on the costal pleura. There is no fluid in the pleural cavity, this being, in fact, nearly obliterated by adhesions.

Heart.—The pericardial sac is obliterated by old adhesions. There are thick fibrous patches over the anterior surface of both ventricles. The heart is enormously enlarged. Freed from blood it weighs 38 oz. All of its cavities are dilated and hypertrophied, the left ventricle most extensively. The aortic valves are somewhat shrunken and thickened, especially about the noduli Arantii. The mitral valves are a little atheromatous. The changes in the valves are comparatively unimportant and not sufficient to explain the hypertrophy of the heart. The dilatation is great as well as the hypertrophy. The musculi papillares of the left ventricle are somewhat flattened. The muscle beneath the endocardium of the left ventricle is yellowish in places. Examined microscopically it is found to be moderately fatty. The coronary arteries of the heart present some sclerosed patches, which, however, are not extensive.

Lungs.—The lower lobes are compressed. The upper lobes are somewhat emphysematous. There is considerable muco-pus in the larger bronchi, where the mucous membrane is reddened. The pulmonary tissue is firm, yellowish-brown in color, and rather dry. It presents the appearance of brown induration.

Spleen.—The spleen is about three times its usual size. It is enveloped in a greatly thickened fibrous capsule adherent to surrounding parts. The splenic substance is dark red and firm. The trabeculæ are evident.

Kidneys.—The kidneys are about normal in size. Their consistence is very firm. The capsule strips off readily, leaving a surface with many depressed atrophic patches, some of considerable extent. Upon section the cortical substance corresponding to these depressions is thinned, elsewhere it is of about normal thickness. The color is dark red. The cortical markings are fairly distinct. A few yellowish lines, due to deposit of urates, can be seen in the pyramids. The branches of the renal artery present some sclerosed patches in the intima. There is considerable adipose tissue in the sinus of the kidney. Examined microscopically there are found in the kidney fibrous Malpighian tufts, thickened capsules of Bowman, increased inter-tubular tissue, atrophied tubes, and thickened vascular walls. These changes are in patches and are not very extensive. They resemble in distribution the lesions of chronic diffuse nephritis due to arterio-sclerosis.

Ureters.—Normal.

Bladder.—Nearly empty. The walls of the bladder are somewhat thickened. The middle lobe of the prostate, in the situation of the uvula vesical, is considerably hypertrophied. This hypertrophy is in the form of a dense, irregular, grayish-white nodule, about the size of a bean, projecting from the floor of the vesical orifice of the urethra. Similar small fibrous nodules are present near the main one. Thick muscular bands (hypertrophied Bell's muscles) extend from the orifices of the ureters to the opening of the urethra. The lateral lobes of the prostate are moderately enlarged.

Intestine.—The coils of the small intestine are so firmly bound together that in many places the intestinal coats tear more readily than the adhesions. The mucous membrane is in places congested and coated with muco-pus, but in general it appears normal. The opening of the common bile-duct into the duodenum is normal, and upon pressure along the course of the duct readily gives exit to bile.

Stomach.—It is surrounded by thickened peritoneum and is adherent to the liver. It is of about normal size. The mucous membrane of the pyloric region is reddened and coated with muco-pus.

Liver.—The liver is rather small, and, as already mentioned, is completely enveloped in a thick, white, fibrous capsule, continuous at the transverse fissure with the thickened and contracted lesser omentum. The prevailing color of the liver-substance is yellowish. There are, however, places which are red and depressed. Examined microscopically the liver is found to be the seat of fatty infiltration, and of a moderate degree of red atrophy. There is no cirrhosis. The gall-bladder is distended with clear, watery serum, containing translucent, gelatinous coagula of fibrin. The opening of the cystic duct into the gall-bladder is completely occluded. There is no bile-coloring of the fluid in the gall-bladder.

Portal vein, etc.—The hepatic and common bile-ducts are pervious, and although they are surrounded with much new-formed fibrous tissue, bile can be easily pressed through them into the duodenum. On the other hand, the portal vein is greatly compressed by the new fibrous tissue in the lesser omentum. The vein is compressed and flattened out, and can only be dissected with difficulty. It contains no thrombus, and its inner coat appears normal. The hepatic artery appears normal, although enveloped in fibrous tissue.

Arteries.—The aorta and other large arteries are very atheromatous, and present upon their inner surface many calcareous plates.

Diagnosis.—Chronic proliferative (deforming, fibrous) peritonitis and pleuritis. Compression of the liver and portal vein. Ascites. General atheroma of the arteries. Hypertrophy and dilatation of the heart. Chronic passive congestion of the viscera. Chronic diffuse nephritis (arterio-sclerotic form). Hypertrophy of middle lobe of prostate. Hypertrophy of the bladder.

WILLIAM H. WELCH.

(To be continued.)

Correspondence.

OUR LONDON LETTER.

(From our Special Correspondent.)

THE GENERAL MEETING AT THE COLLEGE OF SURGEONS—THE PATENT MEDICINES BILL—THE DEATH OF PRINCE LEOPOLD.

LONDON, March 29, 1884.

THE general meeting of members and fellows at the College of Surgeons on Monday last was, contrary to expectation, neither large nor representative. Only one hundred and ten attended, and the discussion was practically carried on by only a few of those present. The resolution to allow voting by proxy in the election of members of council was, as expected, unanimously carried. This point has long been a grievance, as I wrote some time since. Several other resolutions of varying interest were brought forward, and a noticeable feature of the meeting was the decided stand made by the members to obtain more influence than heretofore in the management of the College. At present they have neither voice nor vote. The same, however, is the case at the College of Physicians.

A suggestion brought forward at the meeting on Monday, in Lincoln's Inn Fields, was that the two colleges should combine and obtain power to grant degrees in medicine and surgery, but it was negatived by twelve to six. Such a scheme, if carried out, would bring a degree within the reach of all students, and remove the anomaly at present existing, viz., that nearly all students educated in London are obliged to content themselves with a simple diploma and the title of Mr. Of course I am not referring to those who are going to be pure physicians. They can, if they like, prolong their course of study and obtain a degree somewhere. But they even are compelled to go and reside for a term of years elsewhere than in London to obtain a degree, unless they can squeeze through the narrow portals of the London University. I made some remarks anent this institution in my last letter. I may add that of those who do succeed in obtaining a degree there, most of them spend about seven years in study *after matriculation* to obtain the M.D. degree. Of those who try a large number fail. In round numbers it may be said that, out of every eight who matriculate and go on to the next examination, only two succeed in obtaining the M.B. degree, and only one the M.D. Add that every failure entails twelve months' delay, and that there are three examinations after the "matriculation" before the M.B. can be gained, and one more before M.D. can be won, and it will readily be seen that only a few of the rank and file of the profession can hope to graduate at the London University. No wonder students desert the London schools and flock to Edinburgh, where a degree can be obtained on easy terms, and almost in the same time in which a London student gets an ordinary diploma, which gives him no right to call himself Dr.

The unrestricted sale of patent medicines—that is, unrestricted save for the imposition of the government stamp of three halfpence on every bottle or box sold—has long been a crying evil, and the profession have frequently drawn attention to the dangers resulting from the poisonous nature of many of the compounds sold. On Wednesday last a bill was introduced into the House of Commons which provided that, until these medicines had been analyzed by the Pharmaceutical Society and proved to contain no poisonous substances, they should come under the same conditions as the poisons scheduled in the Pharmacy Act, and sold as such. The bill was unfortunately negatived without a division, but the government admitted the necessity of legislation on the subject, but proposed to treat it on broader grounds. It is rather ludicrous to note that the bill was introduced by Mr. Warton, the most indefatigable opponent in the lower House of legislation emanating from other people, so much so that he has been called "the most pestilent blocker" in the House.

London has been thrown into consternation by the sudden death, yesterday morning, of Prince Leopold, Duke of Albany, fourth son of the Queen. He was always delicate and for most of his life under medical care, as he was a sufferer from that strange and intractable malady, hæmophilia. To this constitutional tendency I apprehend his death was due, as symptoms of cerebral hemorrhage are reported to have followed a slight fall. He was staying at Cannes to avoid our east winds, and a day or two before he died had written home that he was never in better health. His health, however, has never been robust. On his wedding day, nearly two years ago, he appeared to suffer greatly from the effects of a slight injury to his knee some time previously. His sudden death, however, is a great shock to all, and must be especially so to his wife, who is now in England, and in a delicate state of health. It has transpired that the trip to Cannes was undertaken in deference to medical advice, but he was not thought to be seriously ill—far less was his death expected. He was to have been in England on Monday next, and preparations were being made for his reception at Claremont, his residence, where his desolated widow now remains in a precarious condition. He was distinguished as the member of the royal family who especially devoted himself to literature, science, and the arts.

THE SECOND ARMY MEDICAL EXAMINATION, AS VIEWED BY A MEDICAL OFFICER OF THE NAVY.

[THE comparatively late date of the following communication is to be explained by the remoteness of the writer, but his words are nevertheless in season, as bearing upon a topic that deserves a still further discussion.—ED.]

TO THE EDITOR OF THE MEDICAL RECORD.

SIR: The letters discussing the second army medical examination that have appeared from time to time in THE RECORD, have naturally interested us of the sister service not a little, and I should like the growls of some of us, at least, to have a hearing as well.

If our case were no worse than that of our army confrères we would have no cause for complaint; but even Dr. Shufeldt's unusually hard experience with the Army Board is certainly no worse than that of the average naval candidate for the grade of Passed Assistant Surgeon.

I heartily concur in Dr. Brown's opinion, that some examination is necessary, to find out whether or not the former diligent student has become an inert sloth during the five (in the navy three) years of his new life, in which he has been deprived of the former stimulus of competition, example, and teaching, and if the requirements of the second naval examination were no more exacting than those stated by him in THE RECORD of February 2d, I think there is scarcely one among us who would emit a single growl on this subject.

My own experience of the years preceding the examination for promotion was very similar to Dr. Shufeldt's, though hardly so agonizing as he describes his, in spite of the severer trial awaiting me. Knowing the minute, prolonged, and searching character of our second examinations, and the frequency with which my confrères came out of them plucked and humiliated, I could not even read the medical journals with an easy conscience, for every line in them suggested some nerve whose ultimate minute distribution I had forgotten, or some test the details of which I did not know, and which I might be required to give when the examination overtook me. My expectations in this respect were fully realized, and a good

many small points that I had burdened my mind with, exclusively with the intention of getting rid of them permanently at the examination, did come up, besides others that I would have crowded in too if I had thought of them in time.

My examination extended over six days, the usual length of all naval medical examinations, all of them full of hard driving work, for from five to eleven hours, and I know of no more exhausting and stupefying labor than undergoing a prolonged examination. Indeed, more than one candidate that I can recall while writing this, who was found perfectly sound after thorough preliminary physical examination, has broken down under this ordeal.

I happened to pass successfully, with no great margin to spare, however, which, after some years of conscientious study, under considerable difficulties, on board ship, was discouraging enough, but worse than that, carried away with me such an intense and active hatred of the text-books, that for two years afterward I could hardly drive myself to use them, even for reference, and am only now recovering from the effects of years of slavery to them. In this regard my experience is not at all singular; indeed, I venture to assert that it is the rule.

Now, what practitioner, be he ever so studious, applies himself to anatomy, physiology, and the other text-books, for years after he begins active practice, as he did when a student, and what man can develop any originality, or can observe and investigate with any success, when he knows that "the Board" wants the books, and little else but the books, and that any time stolen from the tread-mill will jeopardize his chance of advancement, or even of remaining in the service?

One peculiar feature of our second examination, about the perniciousness of which I ought to say, however, that there are two diametrically opposite opinions, but which at least worked unfairly—I refer to their competitive character—has, I am glad to say, been recently abolished; but while it existed it was an added source of anxiety and distraction to the unfortunate assistant surgeon.

My grievance, in short, is not that we have to show cause why we should not be dropped from the service as useless cumberers, or unfitted for its varied requirements, not that the examinations are long and full—for the longer and fuller they are the more one unavoidable feature of all examinations, luck, tends to be eliminated—but that they are of such a character that we are kept in a condition of boyish tutelage long after we should be working and responsible surgeons; that this anomalous condition unavoidably gives many of us such a distaste for hard study that it is positively injurious, and that that valuable period in a young practitioner's life, when, if ever, he begins to form habits of exact observation and investigation, is wasted to a great extent in dry, uncongenial pegging at text books that are not even new enough to excite his interest, as they did in his college days.

The examination of which Dr. Brown gives a sketch in his letter of February 2d, strikes me as a perfectly fair one, and after the entering examination, which can hardly be too thorough and searching, sufficiently complete to fulfil all the requirements of an examination, not of a student fresh from the lecture and dissecting rooms, but of a practitioner of recognized standing.

GEORGE ARTHUR,
Passed Assistant Surgeon, U.S.N.
U. S. S. IROQUOIS, COQUIMBO, CHILI.

SODÆ SALICYLATE AS A CAUSE OF METRORRHAGIA.—Dr. Walter J. Ransom, of Lockport, N.Y., writes: "I will add my testimony in regard to sodæ salicylate as a cause of metrorrhagia. I have a lady patient subject to occasional attacks of rheumatism. On two or three occasions I tried the salt, and as many times metrorrhagia occurred. On suspension of the remedy the flow ceased."

Army and Navy News.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, United States Army, from April 6, 1884, to April 12, 1884.

BAILY, ELISHA I., Colonel and Surgeon. Ordered to report to the Commanding General Division of the Pacific for duty as Medical Director of that Division, and of the Department of California. S. O. 78, par. 4, A. G. O., April 4, 1884.

SUTHERLAND, CHARLES, Colonel and Surgeon. To be relieved from duty in Division of the Pacific, and to report to the Commanding General Division of the Atlantic for duty as Medical Director of that Division, and of the Department of the East. S. O. 78, par. 4, A. G. O., April 4, 1884.

SMITH, JOSEPH R., Major and Surgeon. Directed to represent the Medical Department of the Army at the annual meeting of the American Medical Association, to be held in Washington, D. C., on May 6, 1884, and on the adjournment of the Association to return to his proper station (San Antonio, Tex.). S. O. 81, par. 7, A. G. O., April 8, 1884.

BAILY, JOSEPH C., Major and Surgeon. Leave of absence extended three months. S. O. 83, par. 8, A. G. O., April 10, 1884.

STERNBERG GEORGE M., Major and Surgeon. Ordered to be relieved from duty in Department of California, and to report to Commanding General Department of the East for assignment to duty.

MOSELEY, EDWARD B., Captain and Assistant Surgeon. Ordered to be relieved from duty in Department of the East, and to report to the Commanding General Department of the Columbia for assignment to duty. S. O. 78, par. 4, A. G. O., April 4, 1884.

WILCOX, TIMOTHY E., Captain and Assistant Surgeon. Ordered to be relieved from duty in Department of the Columbia, and to report to the Commanding General Department of the East for assignment to duty. S. O. 78, par. 4, A. G. O., April 4, 1884.

Official List of Changes in the Stations of Medical Officers U. S. Navy, for the week ending April 12, 1884.

BATTLE, S. W., Passed Assistant Surgeon. Ordered before Retiring Board.

WELLS, H. M., Surgeon. Detached from Naval Hospital, New York, to report at Bureau for Special Duty.

HIBBETT, C. T., Passed Assistant Surgeon. Placed on waiting orders.

STEWART, H., Surgeon. Placed on Retired List from April 10th.

SHOCK AS A THERAPEUTIC AGENT.—Dr. James P. Tuttle, of New York City, writes: "Your short notes on 'Shock as a Therapeutic Agent' recalls to me a practice among rude, country veterinary men, which I was able to see applied some years ago. It is the shock treatment for lock-jaw in horses, and is applied as follows: A board, one inch thick and about six inches wide, is laid across the forehead, and struck forcibly with an ax or hammer, staggering, or even felling the animal to the earth, when relaxation of the spasms is said to occur. Those who practise it aver it never fails. Certainly the case I saw was good evidence of the truth of this assertion, for the spasms at once relaxed, and a tobacco poultice being applied, they did not return."

Medical Items.

CONTAGIOUS DISEASES—WEEKLY STATEMENT.—Report of cases and deaths from contagious diseases reported to the Sanitary Bureau, Health Department, for the week ending April 12, 1884:

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Cases.								
April 5, 1884.....	5	6	84	7	70	40	1	0
April 12, 1884.....	9	4	91	5	88	47	0	0
Deaths.								
April 5, 1884.....	3	0	16	6	11	14	0	0
April 12, 1884.....	1	1	7	5	15	23	0	0

THE TIME FOR THE EXPULSION OF THE PLACENTA.—Dr. H. J. Garrigues, of this city, writes: "Toward the end of your report of the discussion on my paper recently read at the Academy, it is stated that the placenta, on an average, was expelled in five minutes. This is a mistake, and as the point is of practical importance, I hope you will correct it. I said that in the *majority* of the cases the placenta had been expelled from five *to twenty* minutes after the birth of the child. I might have added that in a few the time was shorter, and in many longer."

THE WAY TO PRESCRIBE POTASSIUM CHLORATE IN SOLUTION.—Mr. Bernard Persh, hospital steward, U.S.A., sends us a note regarding the above subject. He says that potassium chlorate is only soluble in cold water (60° F.) in the proportion of ʒj. to ℥ij., and that prescriptions are often written showing great ignorance of this fact. Large doses of the salt are best given by dissolving in boiling water and adding sufficient gum and sugar. As a sample of erroneous prescription, one given by Dr. Hutton in his article on Diphtheria is referred to.

TRAUMATIC RECTO-VESICAL FISTULA.—Dr. C. E. Foster, of Honesdale, Pa., sends us the history of a teamster, aged twenty years, who fell backward on a hickory stake which entered his body just behind the rectum for six inches. It was found that the rectum was penetrated and also the bladder. Gas, fæces, and blood were passed by the urethra. A gum-elastic catheter was introduced into the bladder and kept there. The wound was dressed daily. The patient did well and was at work in six weeks. He still has a very slight recto-vesical fistula.

THE CONJOINT EXAMINING BOARD.—R. O'D. Parks, B.A.L.R.C.S.I., of Ashton, R. I., writes: "In your article discussing Professor Huxley's plan for a Conjoint Examining Board in Great Britain, this passage occurs: 'The Parliamentary bill creates three Boards of Examiners—one for England, Scotland, and Ireland, respectively. These boards will establish a minimum qualification and prevent the present practice of students who fear to fail in England, going to Scotland or Ireland.'"

I am sure you would not willingly be a party to casting an unmerited aspersion on any nationality, but either you are misinformed, or the *present practice* has changed very materially from what it was some twenty years ago. At that time—and there are practitioners in New York City who can corroborate my assertion—it was the notorious and well-recognized practice for students who dreaded the ordeal of the Dublin examination, to go to London, where they generally succeeded in passing; or fearing to go there, or failing to pass, go to Scotland as a last resort. The Irish examinations had always the reputation of being remarkably stringent and searching, and if your statement is well founded they must have wofully degenerated, which I can find no reason to believe.

If you rely on English, and especially *conservative* sources of information for facts concerning Ireland, you will be very liable to fall into error.

Your sense of justice will, no doubt, induce you to give this insertion and prevent an erroneous impression from going forth.

ANOTHER CASE OF CHLOROFORM NARCOSIS DURING SLEEP.—Dr. John I. King, of Burgh Hill, O., writes: "In the issue of THE MEDICAL RECORD for March 8, 1884, I notice a report of chloroform narcosis during sleep. I was taught, and did believe this to be impossible, until December 13, 1883, when I was called to see Scott B——, a lad about nine years of age, of a highly nervous temperament, who had been kicked in the face by a horse. Perverseness and fear made it impossible to replace the different parts and tissues. Waiting until the boy fell asleep, I cautiously administered chloroform to complete anæsthesia, and accomplished my object."

HEREDITARY PROGRESSIVE MYOPATHY.—At a meeting of the Académie des Sciences, M. Vulpian presented, in the names of MM. Landouzy and Déjerine, a remarkable memoir on progressive muscular atrophy without neural lesions. The first important essays on progressive muscular atrophy were published in France. M. Luys had shown that in this affection there existed an alteration of the large cells of the spinal cord; but progressive muscular atrophy is sometimes hereditary, and may be observed in children. In these cases it begins in the muscles of the face, which is the exception in progressive muscular atrophy of adults. Duchenne (de Boulogne) had, by means of this characteristic, distinguished two varieties of the affection. M. Landouzy has had the opportunity of making an autopsy on a young man affected with the "hereditary" form of the disease; death had resulted from acute phthisis. This is apparently the first autopsy performed on a case of the kind. The main feature of the communication was the absence of any neural lesion. MM. Landouzy and Déjerine have earned the reputation of competent observers in matters relating to the nervous system, and hence the importance of their results.—*Lancet.*

MICROBOMANIA.—The symptoms and effects of this malady are described by M. Paul Somans in the feuilleton of a recent issue of the *Gazette Médicale de Paris.* He speaks of it in connection with the numerous maladies which have recently been discussed, such as agarophobia, claustrophobia, and morphiomania. Microbomania is an affection of adult or middle age, sometimes attacking those in advanced years. It is most frequently observed among educated physicians, those most given to biological research, and almost always ambitious. It is characterized at the *début* by a great desire for notoriety, accompanied by a slight degree of fever and a craving to find certain mobile corpuscles. The desire is soon followed by acts calculated to satisfy the special craving. In the end hallucinations are developed as to the presence of corpuscles in impaludism, measles, scarlatina, even in mumps, and the minute organisms are charged with all the crimes imputable to each pathological individuality. The disease is imitative, and if several individuals under the influence of this form of mania should concentrate their attention on one and the same disease, they are very apt to find widely differing microbes.—*Medical Press.*

ORAL PATHOLOGY.—A red line on the gums, with fetor and metallic taste, indicates ptyalism. A blue line—lead poisoning. Great sponginess, with sloughing and great fetor—scurvy. A red line about the teeth and along the gums—periostitis. Purple gums and purulent discharge—necrosis. Gums hot, red, swollen, very tense

—phlegmon. Gums inflamed and soft, with fluctuation —alveolar abscess. Swollen gums, fetid discharge, mucus patches, shallow ulcers under the tongue, eroded palate, eruption of mouth, skin, and scalp, gums everted, fetid matter from necks of teeth—syphilis. A white-coated tongue denotes febrile disturbance. A brown, moist tongue—indigestion. A brown, dry tongue—depression, blood-poisoning, typhoid fever. A red, moist tongue—feebleness, exhaustion. A red, dry tongue—inflammatory fever. A red, glazed tongue—general fever, loss of digestion. A tremulous, moist, and flabby tongue —feebleness, nervousness. A glazed tongue, with blue appearance—tertiary syphilis.—*Ind. Practitioner.*

Sewerage and the Death-Rate.—It is quite suggestive to study the relations between the death-rate and the sewerage and water-supply. For instance, St. Petersburg has a death-rate of 35.2 per thousand, and has no sewerage, while the Neva is its water-supply. The Neva is contaminated by filtration from the privy-combed soil. Pekin has a death-rate of fifty per thousand and has no sanitary works worth mentioning. Cairo has a death-rate of thirty-seven per thousand; it has no sewers and the Nile water-supply is contaminated by excreta.

Mexico as a Residence for Invalids.—The constantly increasing intercourse between this country and Mexico makes a knowledge of its sanitary value of importance. The following notes from Dr. F. Semeleder, of the city of Mexico, will therefore be read with interest. After speaking of the great variety of climate which Mexico offers, he says: "As a general rule, we may state that the coast of the Mexican Gulf offers no suitable place for invalids. During the warm season the coast proper is infested by the yellow fever up to a certain distance from the sea, and even higher up the heat is excessive. Immunity from yellow fever only begins at an altitude of four thousand feet. In winter time the northers blow so cold and with such violence, and the weather, sometimes for a whole week, is so unfair as to make anybody miserable and cause real danger to invalids. The tableland of Anahuac, the central plateau of Mexico, during the cold season is decidedly too cold, the more so as the style of lodging and living is not at all fit for the cold weather, as we have no fire-places, etc. Yet there are numerous places south and west of the capital, protected against the northers, where the climate is mild and delicious during the cold season, with hardly a cool breeze in the morning and evening, and where a suitable living may be had, and at reasonable prices. Yet your readers will please bear in mind that, out of the larger centres of population, the knowledge of the English language so far has spread very little, and the habits and style of living of the people are widely different from what Americans are accustomed to. As for the city of Mexico particularly (2,280 metres), I am of opinion that for most invalids the winter is too cold here, and for a great many of them the air may be too thin and too rarefied. It is never very warm here during the warm season, while the evenings and nights, even in summer-time, are cool and sometimes cold. The dryness of the air is sometimes extraordinary and unpleasant, and the swamps round the city, together with lack of cleanliness and bad drainage, give rise to malarial affections. No invalid should come here without providing himself with heavy winter wear and clothing. Board and lodging may be got here at from $3 to $5 a day. A good hotel on the American plan is greatly needed, and might prove a paying business. Mexico is a large city of more than 250,000 inhabitants, offering almost everything a cultivated mind and a spoiled body may require. As the Central Railroad will soon open through traffic to the States, there will be a quicker, and for many patients more pleasant opportunity for going to Mexico, as the trip by land, via Chicago and Kansas City to the City of Mexico, will take a little more than six days and nights, while it takes twelve days sea-voyage and one day railway travelling to come here from New York via Havana and Vera Cruz. The weather, all the year round, is as follows (more or less): November, December, January, February, dry and cold, sometimes windy and dusty; March, April, May, warm and dry, rains begin in May; June, July, August, September, rainy season, moderately warm, pleasant, rainy, thunderstorms, not windy; October, pleasant and dry. Medium temperature of the whole year (average of six years) 15.6° centigrade; in winter (November, December, January, February), 13.1° centigrade; in summer (March to November), 17.7°; lowest, in December, −2.5°; highest, in April, +30° in the shade, +35° in the sun; barometer at 0°, medium of six years, 586.80."

Deaths from Anæsthetics in the Year 1883.—Dr. Ernest H. Jacob, of Leeds, furnished to the *British Medical Journal* a table showing the deaths from anæsthetics that occurred in 1883. The list includes only England, however. The deaths from chloroform were eleven; from chloroform and ether, one; from nitrous oxide, one. The number of deaths is remarkably small compared with that of previous years, a fact due largely to the increased use of ether and greater care in giving chloroform.

A Rare Case of Suppurating Sebaceous Cyst of the Umbilicus.—Dr. Walter J. Ransom, of Lockport, N. Y., writes that he was called to see a patient who had been suffering from pain about the umbilicus. The patient was a printer, unmarried, twenty-eight years of age, and had previously been healthy except for occasional umbilical pains. For about ten days he had had a bloody discharge from the umbilicus. "On examination," writes Dr. Ransom, "I found what appeared to be a polypoid growth bathed in a sanguino-purulent discharge. On gently passing a small probe around the growth I found that it bled very easily, and on palpation I found a cord-like swelling about half an inch in diameter and extending about one inch below umbilicus, gradually receding from the surface; no sign of fluctuation was present, but it was very tender. Temperature and pulse were normal, tongue slightly furred. I applied pure carbolic acid to the apex of the growth, which consisted of profuse granulation tissue, and requested him to call the next day or send for me if pain was worse. On the following morning I was called; found the patient up and dressed, but feeling quite sore; on examination I found a slight increase of tumefaction, and a decided increase of tenderness. I very carefully explored with the probe and immediately about half a drachm of pus appeared. I introduced a small tent of lint and ordered a flaxseed poultice applied hot, and renewed every hour; left the patient and called in P.M.; during the interval very little pus had escaped, and the pain (which I neglected to state immediately subsided after the pus was evacuated at my morning visit) had reappeared. I removed the tent and repeated the morning treatment, and again pus escaped. I then left tent out and ordered poultices continued, and left a preparation of morphia in solution, one-tenth of a grain to be given every half hour, if needed, to relieve any severe pain; also half drachm of opii tinct. to each poultice. I called on the following morning and found the pain quite severe. I also found that he had taken but two or three doses of the morphine, claiming that it made his head feel badly. I directed ten-drop doses of opii tinct. every hour, if needed. I found considerable cheesy matter engaged in the opening, and cleared it away with my probe and explored the opening, which I found clear as far as I dared probe, which was about one inch downward and slightly inward. The opening being patulous and not very large, I concluded to introduce two tupelo tents; this I did, and left them about two hours. Notwithstanding their small size, on their removal there was quite profuse hemorrhage, which quickly subsided. I now looked upon it as a case of suppurating sebaceous cyst or tumor, which being deeply situated had escaped his notice. In view of the presence of pus

I thought proper to introduce a small drainage tube, and did so at my P.M. visit; it gave him considerable pain, and during the night the tube was removed. At my morning visit I found the pain severe, and more bad-smelling sebaceous matter and pus. I directed more poultices and the anodyne continued. This was about 7 A.M., at 11 A.M. I again visited him and found the swelling considerably increased and the patient anxious and alarmed. I separated the lips of the opening and gently pressed on the surface below the umbilicus, and out popped a large plug of foul-smelling sebaceous matter, about one inch and a quarter long and one-third of an inch in diameter, partially inclosed in a sac. 'The child was born,' the patient heaved a sigh of relief and so did the doctor, and now the case is progressing rapidly toward recovery."

A WOMAN WITH FOUR MAMMARY GLANDS.—Dr. W. E. Whitford, of Rossie, N. Y., writes that he was recently called to see a woman, aged thirty-eight, mother of five children, who was suffering from an abscess in one of her breasts. About three inches below the nipple, on each side, there were miniature mammary glands. After confinement these would become quite large and secrete milk for about two months.

DENTAL HYGIENE AT SCHOOL.—According to M. Galippe, dental caries is frequent in boys and girls preparing for examination, and may be ascribed to the excessive efflux of blood to the head. Others suppose that the brain makes use of the phosphates which ought to be employed in the formation and growth of the teeth. M. Harlan is of opinion that dental caries is most frequent in young people who work hard, and are very successful in their examinations.

MEDICAL DIPLOMAS AT BUFFALO.—Dr. W. W. Potter, of Buffalo, N. Y., writes: "The well-deserved reputation of your journal for liberality and fairness in its treatment of all questions relating to the profession, whether involving individual, collective, or public interests, precludes the belief that you would wittingly lend its columns to the cause of injustice, prejudice, or error. Nevertheless, in the weekly news column of your issue of April 12, 1884, appears an item with the above heading, which, if allowed to pass unchallenged, is calculated to do harm in all of the directions named. Let me briefly state the grounds for this assertion. At the annual meeting of the Erie County Medical Society, held January 8, 1884, a Board of Censors was chosen which consisted of the following named gentlemen: Drs. Edward Storck, F. F. Hoyer, H. R. Hopkins, P. W. Van Peyma, and A. H. Briggs. It is a well-known fact that the duties heretofore imposed by law upon the Boards of Censors of the several counties in the State, were swept away by the statute of 1880, known as the 'Medical Registry Law.' A Board of Censors elected since that time could, therefore, only exercise such powers as should be specifically delegated to it by special resolution of a county medical society. The Erie County Medical Society has not instructed its Board of Censors for 1884 to perform *any duty whatever*. A careful examination of the records made at a recent meeting of the Society, in the presence of seventy-five members, disclosed this fact. The Board of Censors, acting for itself alone and without authority of the Society, has, however, seen fit to employ counsel in a so-called investigation as to the legality of the charter of Niagara University, which counsel has given an opinion apparently adverse to the legality of the said charter. Moreover, this opinion was published in full in the columns of one of our leading daily papers, under date of April 5, 1884, and before the Society had obtained manual possession of the same, or even knew of its purport. It is proper to state in this connection, that the chairman of the Board, Dr. Storck, stated in a recent meeting of the Society, that he disclaimed for himself and for his associates any connivance in this premature publication of the report, and condemned the act in fitting terms. The same day the report was published (April 5th) a call was issued for a special meeting of the Society, to convene at Buffalo Medical College, April 8th, at 8 P.M., to hear the report of the Censors regarding 'pending legislation pertaining to the incorporation of medical colleges.' At this meeting about seventy-five members attended, and, upon hearing the report read, the writer moved to table so much of it as pertained to Niagara University, there being no authority for the same. This motion was lost by a vote of 35 ayes to 40 nays. The report itself received no further action at the hands of the meeting, which, after the transaction of some further business, adjourned *sine die*. Before concluding this letter, permit one word as to the status of Niagara University: This institution was established last year under a charter granted by the Regents of the State, a special legislative act permitting the erection of its medical department in the city of Buffalo. The latter is organized in the interests of a higher standard of medical education. It has a three years' graded course, a preliminary examination for admission which includes Latin, and its graduates are required to pass the examination of a board independent of, and apart from the faculty. Its faculty consists of some fifteen or twenty well-known medical men, all members of the Erie County Medical Society, and other regular medical bodies, in good standing, and whose good faith and pure motives cannot be impeached. This much seems needed to be said, lest the Niagara University be confounded with a defunct medical college which fell to the ground last year, under a decision of the courts adverse to its legality."

CONGENITAL MALFORMATION OF THE STERNO-MASTOID.—Dr. S. Lilienthal, of New York, writes: "In THE MEDICAL RECORD of February 16th, Dr. Parks, of Ashton, R. I., publishes a case of congenital malformation of the sterno-cleido-mastoid muscle. I had a like case a few years ago and followed Henoch's plan—did nothing for it—and it disappeared entirely, although it took some time to do it. If the doctor will consult 'Henoch's Diseases of Children' (Wood's edition, page 19), the doctor will find that this hæmatoma cannot be called exactly congenital, as it is a sequelæ of a tedious labor, and that they get well without much interference."

WHY THE UTAH MEDICAL BILL WAS VETOED.—Dr. S. O. L. Potter, of Salt Lake City, sends us the following: "In your last issue you do a great injustice to the Governor of Utah by stating that he vetoed a bill to regulate the practice of medicine in this Territory at the solicitation of certain patent medicine men. Governor Murray vetoed the aforesaid bill in the interest of the regular medical profession, as the following facts will show.

As first introduced, the bill gave the licensing power to the county judges (who are all Mormons), providing that any non-graduate desiring to practise should be examined by a board of examiners to be appointed by the said county judge, thus setting up a separate certificate-factory for every county in the Territory. Before its passage (but after its publication) the bill was slyly amended by inserting a proviso (I quote from the bill), that "the court may revoke the same (license) at any time for *good and sufficient cause*."

Governor Murray believed that the indefinite term "good and sufficient cause" would (if law) place too much power over the Gentile members of the profession into the hitherto arbitrary hands of the Mormon county courts. Hence the veto, and his action was supported by nine-tenths of the Gentile physicians and by some liberal-minded Mormon ones also, who did not believe that any hostile body should have the power by law to revoke a license, once duly issued, for any whimsical cause which, to the mind of a Mormon county judge, might appear to be good and sufficient."

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Original Lectures.

ON THE METHODS OF STUDYING THE BRAIN.

ABSTRACT OF THE CARTWRIGHT LECTURES, DELIVERED BEFORE THE ALUMNI ASSOCIATION OF THE COLLEGE OF PHYSICIANS AND SURGEONS, NEW YORK, FEBRUARY 2, 4, AND 6, 1884.

BY BURT G. WILDER, M.D.,

PROFESSOR OF PHYSIOLOGY, COMPARATIVE ANATOMY, AND ZOÖLOGY IN CORNELL UNIVERSITY, AND OF PHYSIOLOGY IN THE MEDICAL SCHOOL OF MAINE.

(Continued from page 367.)

LECTURE III.

SOME POINTS IN ENCEPHALIC ANATOMY WHICH ARE NOT INFREQUENTLY OVERLOOKED OR MISUNDERSTOOD.

CONTINUING the discussion of cœlian circumscription, the lecturer next considered the *Endyma*. By this term is herein designated the lining of the encephalic cavities. For present purposes it is not necessary to discuss its precise nature, or whether the above word is the right one to use. The cœliæ are certainly lined throughout by something which adheres closely to the parietes, whether nervous or only membranous, and which is reflected from the parietes upon the intruded plexuses so that these latter are in the cavities only in the sense in which the kidneys and other abdominal viscera are in the abdomen. In fact, the endyma is closely comparable with the pleura and peritoneum, and, like them, consists of a parietal portion and a visceral portion, the two being continuous at the points of entrance of the plexuses.

Whatever view may be adopted as to the microscopic constitution of the endyma, its continuity is absolute and unquestionable, excepting—apparently—at certain points in the roof of the metacele, now to be considered.

Foramen Magendii.—It is commonly admitted that, in the adult human brain, the metatela (roof of the metacele or "fourth ventricle") presents three orifices, one mesal and two lateral, by which the cœliæ are in direct communication with the subarachnoid space. As figured and described by Henle and by Schwalbe, the mesal is rounded and near the tip of the cœlia; the lateral are longer and irregular, and near the flocculus at each side. The former is also figured in transection by Reichert and in longisection by Quain, after Key and Retzius. Westbrook considers that the presence of an orifice is exemplified by the fact of material injected into the myelonal subarachnoid space reaching the encephalic cavities. Allen and Gray do not mention the lateral orifices, and the latter states that the mesal orifice "usually" occurs.

In the days of Helkiah Crooke, or even Solly, no especial surprise might attend the supposed discovery of any number of direct communications between the encephalic cavities and the exterior of the organ. Now, however, the presumption is that the cœlian parietes are continuous, and the *onus probandi* rests with those who affirm the existence of the foramina in question. Here, at any rate, is an imperfectly understood part of human anatomy.[1]

Pseudocœlia.—Since the "fifth ventricle" or "ventriculus septi pellucidi" is, from the manner of its development, merely a portion of the interhemispheral interval which is intercepted between the callosum and the fornix, the continuity of the caudal ends of those parts closes the space completely in that direction; in man, by the extension of the rostrum toward the terma, its cephalic boundary is also completed, and the cavity, according to Quain, contains liquid.

In man, and perhaps some other mammals, the corresponding portions of the mesal walls of the hemispheres become, or remain, thin and translucent, and the morphologically inappropriate name *septum lucidum* was given to them together. Each is thus a *hemiseptum*, and in the cat their thickness is such that the adjective has no application.

To the mesal or pseudocœlian surface of each hemiseptum, Huxley gave the name septal area, the technical form of which is *area septalis*.

Whether or not this surface is devoid of epithelium (as stated by Quain), it seems proper to separate it from the true entocœlian surfaces on the one hand and the ectocœlian on the other, if only to emphasize the fact that the pseudocele, although simulating the true cœliæ, is at no time in communication therewith.

The existence of an opening between the fornicolumnæ dorsad of the precommissure and leading from the third ventricle to the fifth, was formerly quite generally admitted, in the fœtus at least (Tiedemann, Todd), and is credited in some recent manuals (Heath, Darling and Ranney, Harrison Allen, Gray), notwithstanding explicit denials by Mihalkovics, Henle, and perhaps others. In the last edition of Quain the facts are stated correctly.

Several years ago I satisfied myself that no such communication exists in the cat or in mammals generally, and so stated on several occasions. Although confident, from the nature of things, that any such orifice in man must be artificial, it is only recently that material has been at my disposal upon which I could demonstrate the continuity of the aulic parietes between the columns. In a brain removed, preserved, and dissected in the usual way, this lamina can hardly fail to be torn, and thus give rise to a belief in the presence of a normal orifice.

Crista.—This is selected as an example of group *d*, because, while constantly present in the cat, it does not appear in the adult human brains examined by me, and has so far been observed only in the preparation of the brain of a young child. In the cat, when fresh, it has an almost gelatinous appearance, but becomes opaque in alcohol. It has not yet been examined histologically.

Terma ("lamina terminalis *s.* cinerea").—This is selected as an example of group *e*. Its existence and continuity are now generally recognized, but I have never seen it represented otherwise than in section, and usually it is shown as if quite thick, whereas it is very thin and quite transparent. As constituents of the encephalic parietes, and perhaps resembling closely the earlier condition of all of them, the terma and valvula merit more attention than they are apt to receive as components of an organ devoted chiefly to mental and nervous action.

Diatela, dorsal part of the diacœlian parietes, or primitive roof of the third ventricle.—In Quain it is correctly stated that "the third ventricle is roofed over by the epithelial lining of the cavities;" the implication is, however, that, but for the fold of pia constituting the velum, the roof would consist merely of the epithelium.

[1] From the peculiar relations and adhesions of the parts, it is very easy to make artificial openings through the roof of the "fourth ventricle," and I have not yet satisfied myself as to the existence of the Foramina of Magendie in either the cat or man.

There is no intimation of the primary existence of any proper diacœlian roof, and the figure of a transection of the diacele is not very distinct upon this point. In Gray the epithelium is not mentioned, while in "The Anatomy of the Head" and some other works the *fornix* is described as constituting the "roof of the third ventricle." The transections by Reichert indicate, perhaps too distinctly, the separation of the fornix from the diacœlian roof, for the presence and relations of the velum are not clearly shown. Certainly there is a general impression among medical men that the true roof of the third ventricle is the fornix, and that the velum and any possible epithelium are of no especial importance.

The origin and perpetuation of this impression are to be ascribed in part to the manner in which the hemispheres are commonly torn up from the thalami, and partly to the non-recognition of the embryological facts that the mesal part of the fornix, like the callosum, is a later development; that the diacele was already circumscribed, and remains so when they are removed. It is true that in man and most of the higher mammals, in the adult state, the velum adheres closely to the primitive diatela and sends intrusions through it in the form of plexuses; but in the frog these plexuses do not exist, in a young rabbit the diatela is seen to be uncomplicated, and even in the adult cat, by using great care, the velum may be pulled away, leaving the plexuses, of course, but without tearing the diatela from its attachments to the thalami. Cephalad, the diatela is attached to the fornix, and its epithelium is continuous with that which lines the aula and portæ. The lateral attachment of the diatela is along a line just dorsad of the habena. In the cat there is here a slight furrow, *sulcus habenæ*, which I have not yet recognized in man. In general, however, in all mammals examined by me, the habena indicates approximately the line of continuity of the atrophied diacœlian roof constituting the diatela with the hypertrophied lateral wall, thalamus. It thus also forms the boundary between the entocœlian, endymal, mesal aspect of the thalamus and its ectocœlian, pial, dorsal surface.

Is the thalamus a constituent of the procœlian floor? A full discussion of this morphological question must be reserved for another occasion. The following is a summary of my understanding of the matter:

1. In most treatises upon human anatomy a portion of the dorsal aspect of the thalamus is described as forming part of the floor of the lateral ventricle.

2. This idea is contrary to all the facts of embryology, and of the comparative anatomy of non-mammalian vertebrates.

3. In all the mammals examined by me, excepting Primates (man and monkeys), the margin of the fornix (fimbria) is in close relation with the striatum, with only space between (rima) for the intrusion of the proplexus. Hence the thalamus is wholly excluded from the procele.

4. The brains of apes and monkeys have not yet been examined by me with reference to this point.

5. In man the fornix is relatively narrower than in most other mammals. Its margin (fimbria) is for some distance separated from the tænia at the furrow (Sulcus limitans) between the striatum and the thalamus. Consequently, a part of the dorsal surface of the latter *appears* to enter the procele.

6. In all cases, however, the procœlian endyma is continuous over the intruded proplexus, and thence to the tænia and so upon the striatum. In some preparations this endyma is easily separable from the thalamus; when it adheres thereto, the line of rupture along the shallow groove (Sulcus choroideus of Schwalbe) corresponding with the margin of the fornix, constitutes one of the *ripæ*.

7. The dorsal surface of the thalamus is thus in two divisions, pial or subfornical, and subendymal. The lateral margin of the former is the furrow just mentioned; its mesal boundary is the habena or its sulcus already mentioned. The mesal surface of the thalamus is truly entocœlian; the lateral portion of its dorsal surface is pseudo-entocœlian; its mesal portion, like all the other surfaces, is pial or ectocœlian.

8. In representations of the dorsal surface of the thalamus, the distinction between the pial and the endymal portions should be indicated in some way, and with as much definiteness as is the distinction between the pial portion of the dorsal aspect and the endymal, mesal aspect.

9. Judging from the condition of the parts in embryos and in the lower mammals, this anomalous, apparent entrance of the thalamus into the procele may be attributed to a disproportionate lateral growth of the dien, by which the fimbria and the tænia, at first separated only by the rima for the entrance of the proplexus, are moved apart, the endyma, however, extending itself *pari passu* so as to retain its continuity over the thalamus.

10. When the thalamus is described as entering into the composition of the procœlian floor, some qualification should be added. Strictly speaking, such entrance might as well be ascribed to the cerebellum or a part of any other segment.

11. In order that the human anatomist may be satisfied respecting the circumscription of the procele and the real exclusion of the thalamus therefrom, he should first recognize the segmental constitution of the entire brain; second, admit that the presumption is in favor of endymal continuity; third, study the brains of lower mammals; fourth, examine the human brain by other than the stereotyped methods.

(To be continued.)

Original Articles.

SYPHILIS OF THE CENTRAL NERVOUS SYSTEM.[1]

By L. PUTZEL, M.D.,

NEW YORK.

My purpose in the present paper is to call your attention to the clinical history of various forms of syphilitic affections of the central nervous system, and to make a few remarks incidentally with regard to their diagnosis and treatment. To do this exhaustively would require a monograph, and I have limited myself to the presentation of certain of the more interesting and familiar types, taken from my history books.

The syphilitic virus, as you are well aware, may affect either the vessels of the brain and spinal cord, the nervous centres themselves, or their membranes. Syphilitic lesions of the brain itself, independently of an affection of the vessels or the membranes, are so very uncommon that their existence has been denied by many writers; but a few authentic cases have been reported in the literature of the subject, and I have had the good fortune to observe such a lesion on the post-mortem table.

A striking peculiarity of the lesions of nervous syphilis is their irregular, disseminated character. Lesions of all the three structures mentioned above may be found present at the same time. It is not at all uncommon to find patches of syphilitic endarteritis in all or nearly all the vessels of the Circle of Willis associated with a gummy meningitis, a pachy-meningitis, or perhaps with a gummy tumor. This fact of pathological experience, which I have verified post mortem on a number of occasions, is of great importance from the standpoint of diagnosis, and consequently of treatment. As is well known, the nervous affections of syphilis occur, in the majority of cases, during the tertiary stage of the disease, and perhaps many years after the development of the initial lesion. It is also a peculiar feature of these affections that the secondary lesions of the original disease often are very

[1] Read before the New York Medical Union.

slightly marked, so that they have been entirely unnoticed by the patient, and he may be unaware of his infection with the specific virus. Reliance upon his statements, therefore, would be very apt to lead us astray. I would, accordingly, lay down as an important factor in diagnosis, that the existence of syphilis should be suspected in every case of nervous disease in which the symptoms appear to be due to an organic affection and are grouped in an irregular and anomalous manner. Not that this is true of the majority, or perhaps even of a large proportion of cases, because many of them present a clinical history of monotonous uniformity. But the feature referred to has seemed to be particularly well marked in those cases in which the previous history of the patient has aroused no suspicion of the existence of syphilis. In fact I have often thought that those cases were most severe in which the secondary symptoms of syphilis had been remarkable chiefly by their absence—as if the syphilitic virus had reserved its energies for a final onslaught upon the nervous structures.

I also wish to make a few remarks concerning the great importance of headache in the diagnosis of cerebral syphilis. There are perhaps few cases of cerebral syphilis in which headache has not been a prominent feature at some time during the course of the disease, and it is very commonly observed at the very onset, before the development of any other signs indicative of a serious implication of the nervous centres.

The headache of syphilis is usually characterized by a number of circumstances which of themselves should put us on our guard as to the true nature of the malady, apart from the previous occurrence of infection. This headache is usually localized in the temples, though it may also be diffused over the entire cranium; or, on the other hand, confined to a very small part of the skull, as in hysterical clavus. While the patients tell us that the pain appears to be seated in the bones, they also tell us that it extends inward, as if situated in the brain tissue itself; furthermore, the pain is usually of a dull, boring, pressing character, with marked nocturnal exacerbations as a rule, though like every other rule in medicine, there are a number of exceptions. It is also a peculiar feature of syphilitic headache that, unless subjected to proper treatment, it is apt to last without intermission for several months, and, under these circumstances, is usually complicated after a little while with impairment of memory or other evidences of enfeeblement of the mind.

The recognition of the true character of such a headache as we have described, is of the utmost practical importance. In fact, this symptom is so often a prodrome of the most serious affections of the brain, that a patient suffering from it should be looked upon as already having an organic cerebral lesion, and should at once be placed upon antisyphilitic remedies. As a rule, the headache will soon yield to such measures, but we should not be satisfied even with its entire disappearance. The treatment should be continued uninterruptedly for at least a year after the disappearance of the last symptom. If this is not done the chances are strongly in favor of a relapse—and this time perhaps with graver and more persistent symptoms.

Perhaps it will be well to say a word here with regard to the etiological relations of syphilis and locomotor ataxia, a relation which has been brought prominently before the profession by Vulpian and Fournier, and has also been ably advocated by Erb. Despite the great weight of the opinion of these authorities, I am forced to deny the validity of their conclusions. In my own hospital and private practice, although careful search has always been made into the existence of previous syphilitic symptoms, they have been found in only a small proportion of cases. A strong point against the syphilitic character of ataxia consists, to my mind, in the fact that the lesion of the latter disease is a systemic lesion, while all the other syphilitic lesions of the nervous system affect the tissues in an irregular manner. Another powerful argument consists in the uselessness of anti-syphilitic remedies in the treatment of ataxia. At all events, though I have employed these remedies for long periods and in large doses, I have yet to find a single case of ataxia benefited by them to any noteworthy extent. And this is true even of those cases in which the patients presented merely the lancinating pains and the absence of the patellar reflex, while true ataxia was still absent. But opinions on this question are so conflicting in their nature that it must still be regarded as an open one.

In the treatment of nervous syphilis our sheet-anchor is the use of iodide of potassium and mercury. In the beginning of my practice I relied almost exclusively upon the iodide, but I soon found that smaller doses of this drug, if combined with mercury, produced more rapid and better effects. My measure of the dose of the iodide which should be administered is the effect upon the nervous manifestations and the general condition of the patient. If the stomach is not irritated to such an extent as to interfere seriously with digestion, or if anæmia and rapid loss of vitality do not result, the remedy may be given in rapidly increasing doses until our object is effected, viz.: the improvement of the symptoms. We should not falter at the enormous dose which is sometimes necessary to effect this object; in desperate cases I have frequently given an ounce a day. As soon as improvement is manifest, the quantity administered should be gradually reduced. Another caution may not be out of place. The urine should be frequently examined during the administration of large doses of iodide of potassium, as cases have been reported in which acute nephritis has been produced.

Without further preliminary remarks, I will now turn to the consideration of my cases, the histories of which I have abbreviated as much as possible, in order that their perusal might not prove too tiresome.

Case I.—J. O——, aged twenty-nine years; family history unimportant, except that an aunt suffered from epilepsy. About three years ago he contracted gonorrhœa and soon afterward a chancre. No constitutional symptoms developed until two years later, when his hair began to fall out and mucous patches appeared in the throat and mouth. Four or five months later he had intense headache at night and pains in the bones. At this time he would sometimes fall, on account of weakness of the lower limbs, and could get up with difficulty. At times his gait was unsteady, and his ideas of distance were imperfect, so that he often ran against objects which he intended to pass. There was no trouble if the object was on his left side, but if on the right side his miscalculation would amount usually to about a foot. After a while he learned how to make the proper allowance, and then met with fewer accidents. For four or five months previously he was unable to discharge his urine satisfactorily on account of lack of expulsive power, and if the bladder became distended, overflow resulted. There was also imperfect control over the bowels. At the end of two months he was slightly improved, with the exception of the bladder and bowels, and returned to work, still continuing under antisyphilitic treatment.

October 8, 1881, while in a wagon with some fellow-workmen, he found himself unable to say what he wanted, and noticed that objects around him appeared to be obscured unless he concentrated his gaze upon them. There was a dazed feeling, as if he were losing control of his thoughts. The right arm and leg were weak, numb, and chilly. On stopping for dinner there was great difficulty in walking, on account of the weakness of the right leg, and while at the table patient found that he could not raise the right hand to his mouth. He would drop articles of food, and would put them past his face on either side instead of into his mouth; but retained sufficient power to cut meat with this hand. Fluids dribbled out of the mouth on the right side, and the food had a tendency to collect in the right cheek. Sensibility was diminished in the right hand.

The inability to speak was due to a loss of words as well as to the difficulty in articulation. During the afternoon the power of speech improved somewhat. In the evening, when trying to pass to the left of an object, he would find it right before him. At this time the aphasia was complete.

On the next day he was able to express himself to a physician, though in an indistinct manner; power of locomotion unimproved. Reading would be forgotten as soon as read. From time to time there was some tremor of the right leg.

On the following Friday he had improved so much, both as to mental condition and walk, that he began light work; then tried to do hard work, but found it too laborious.

Present condition: October 29, 1881.—The right arm is appreciably weaker than the left; dynamometer: right hand, 45; left hand, 53. The measurements of the limbs are equal on the two sides. Patellar reflex and ankle clonus increased on both sides. Tactile sensation is normal on both sides of body; sensation to pain is much diminished over the entire right side, with the exception of the shoulder, thorax, arm, and dorsum of the forearm. On the left lower limb there is diminished sensibility to pain and delayed conduction, so that when pricked with a pin the patient feels two sensations; the first, tactile, while the second, coming just long enough after the first to be distinguished separately, is painful. Electrical reactions normal. Patient states that some aphasia still remains, though it is not evident; is not able to add a column of figures at sight as formerly; walks stiffly with a cane.

Notes taken on February 27, 1884, show the following condition: The right arm is now stronger than the left; the dynamometer readings are 74 for the right hand, 65 for the left hand. In fact, no loss of power can be detected in the upper limbs. The patient walks without the aid of a cane, but the right leg is weaker than the left, and is dragged somewhat. There is slight paresis of the power of flexion in the right knee when he walks fast, and the right foot grows cold. The patellar tendon reflexes are exaggerated, and ankle clonus is marked on both sides. Sensation is normal throughout the body, except in the right leg, where it is a little delayed. The bladder is very much improved. In other respects the patient feels quite well, and nothing abnormal can be discovered.

It seems to me hazardous to venture upon the diagnosis of the exact localization of the lesion in this case. The coexistence of aphasia and right hemiplegia of motion and sensation would point to the left middle cerebral artery as one of the sites of disease. In the absence of a personal examination of the patient at the time when he was suffering from the peculiar affection of vision referred to above, I am unwilling to offer any explanation of the phenomenon, though I presume it was due to ocular paralysis. At the present time the lesions, wherever they may be located, have evidently resulted in a slight descending degeneration of the lateral columns of the spinal cord, and, to judge from my past experience of this condition, the chances of further improvement are very slight indeed.

Case II.—E. C——, aged thirty years, entered the hospital November 9, 1880; has never indulged in strong drink. Four years ago he contracted a chancre; he then continued well until two years ago, when he contracted another chancre. This was cauterized a week after its appearance, and medicine was taken internally for four months, but the sore did not heal until three months after cauterization. Denies having had any eruption; about a year ago he had ulceration of the nose and hard palate.

Last June he suddenly fell unconscious, and remained in this condition for about an hour. In falling he struck the back of his head against the edge of a wash-tub, and has suffered since from a feeling of soreness at the point of contusion. This is worse at night and when he is excited. He has had three subsequent attacks of unconsciousness similar to the first. He felt as well as usual before and after the attacks, resuming work as soon as consciousness was regained; did not bite his tongue during the attacks. Does not think that he had convulsions.

Present condition.—Patient is apparently well nourished; appetite poor, bowels very constipated. No trouble with the bladder. Heart and lungs normal. The hair of the scalp is thin, and has been falling out for about two years. Tenderness of the shins and sternum; several cicatrices upon the penis. Also has a cicatrix on the roof of the mouth. Suffers from frontal headache every night. The pupils are equal and respond well to light. Field of vision not diminished in either eye, but eyesight is slightly impaired in left eye. Has no trouble in walking, and thinks he is as strong as ever. Motion and sensation normal throughout the body. His face has a vacant and indifferent look. There is considerable mental obtuseness, and it takes several seconds for him to appreciate what is said to him. He is very slow and deliberate in his answers, and does not always finish a sentence. Memory is very poor. He has had attacks of mental aberration nearly every night during the past month. During these attacks he talks incoherently, and gets out of bed without any apparent object in view. When spoken to during the attacks he regains his usual senses and soon falls asleep.

The patient was placed under antisyphilitic remedies, and soon improved steadily in all respects, so that he was discharged cured, and at his own request, on February 24, 1881, after having been under treatment for three and a half months.

This is an illustration of what may be called the mental form of the disease, and the symptoms are probably the result of some diffuse lesions, perhaps involving the cortex of the convexity outside of the motor region. There is very little doubt in my mind that the patient is not permanently cured, and that unless treatment is steadily continued by him for a couple of years (which is highly improbable), a relapse will occur sooner or later, attended with more serious symptoms.

Case III.—September, 1878, Annie D——, aged thirty years, had chancres and bubo at the age of fifteen years; secondary symptoms (eruption, pains in shins, alopecia) five years later; has always been a hard drinker. Last November got clonic spasm of right leg, and constant pain in the calf. In December began to have convulsions. In the first two or three she did not lose consciousness, but did in the subsequent ones. Has had twelve attacks between last December and July of this year. They were all confined to the right side, beginning with twitching of the fingers. This gradually spread upward, and then the patient lost consciousness. Her friends informed her that on two occasions the convulsions became general. After the third attack (last January) the right arm became paralyzed and felt numb. At the present time dynamometer shows right hand 25, left hand 85. The sensation in the arm is normal. This patient was placed on anti-syphilitic treatment, and made steady improvement, except when recovery was interrupted by her devotion to the bottle and failure to take medicine regularly. I saw her again about a year later, and all the symptoms had disappeared.

The symptoms in this case are those of typical syphilitic cortical epilepsy, due in all probability to a gummy growth of the motor portion of the cortex of the left hemisphere, or to the irritation of a gummy pachymeningitis in this region. Such a lesion should always be suspected in every case of repeated unilateral convulsions, which always run the same course, especially if the attacks are preceded by an aura on the same side of the body as the convulsions, and if paralysis of the same side gradually supervenes after a number of seizures. In many instances also it will be found that each convulsion

is followed by a partial loss of power in the parts subject to spasm, but this paresis disappears in a period varying from a few hours to several days. Even if no history of syphilis can be elicited in such cases it will be well to institute an antisyphilitic course of treatment.

Case IV.—J. O——, aged thirty-three years, admitted to Randall's Island Hospital, September 19, 1881. She has been a hard drinker; had six children, all of whom died at the age of two to four years; denies venereal. Two years ago diplopia developed, with burning in right eye; then the face around the right eye began to swell, with shooting pains in eyeball and head, and the parts have remained swollen ever since. At the outset noticed anæsthesia of right side of face; at end of six months marked hyperæsthesia of upper half of right side of face and anterior half of right side of scalp; this still continues. Pain and ringing in right ear from the start; more or less deafness in this ear for past two to three months. About a year ago the legs, particularly the right one, began to grow weak; two months ago the right arm grew so weak that patient had to give up work.

Present condition.—Marked swelling of right side of face from lower border of the malar bone to upper part of right side of scalp and forehead. Perceptible dragging of right leg in walking.

Special senses.—Hearing: patient hears watch at six inches with right ear, two feet with left. Sight: left eye normal; right field of vision narrowed in all directions. Dr. Cocks states that the right optic nerve shows evidences of neuritis. Taste and smell: markedly diminished on right side. Motion: considerable loss of power in right arm; dynamometer, right hand 22, left hand 40. Slight paresis of right lower limb.

Sensation.—Marked diminution of tactile sensation in right upper and lower limbs, and abolition of sensation in tips of fingers and toes. Slight diminution of sensibility on right half of trunk; abolition on right cheek below a horizontal line drawn from lobe of ear; exquisite hyperæsthesia above this line. Cutaneous reflexes abolished on right side.

Diagnosis.—Syphilitic (?) periostitis of the cranium and face, corresponding to the tumefaction; endarteritis of left middle cerebral artery, producing softening of interior capsule. Ordered kali. iodid., gr. xv., and hydrarg. bichlorid., $\frac{1}{32}$ gr. t.i.d. Marked improvement in two weeks.

October 13th.—Sharp shooting pains in left leg, which kept on increasing.

October 20th.—Increased cutaneous reflex in sole of left foot; with exception of hip-joint, the joints of left leg are tender when pressed together. Tenderness over transverse processes of spine, chiefly on left side, from middle of dorsal region to upper border of coccyx. Marked hyperæsthesia over left side of trunk, beginning above at middle of dorsal region, and also over left lower limb. Tumefaction on head rapidly disappearing. Dose of antisyphilitics doubled, and actual cautery applied, every second day, over transverse processes of spine on left side.

November 8th.—Iodide of potassium increased to 3 j. t.i.d.

November 12th.—Pains in the limb have disappeared; patient markedly improved, except special senses, which remain in *statu quo*.

December 2d.—Patient discharged.

The symptoms which developed late in the left leg may be attributed to spinal pachymeningitis below the middle of the dorsal region. In this case no direct history of syphilis could be obtained; but the occurrence of periostitis without any known cause, the irregular distribution of the cerebral and spinal lesions, and the prompt response to antisyphilitic treatment, justify the assumption of the existence of constitutional syphilis.

In this connection I am happy to be able to quote such an eminent authority as Buzzard, who says: "I should not take much account of this absence of evidence if there were other reasons for strongly suspecting syphilis, for we are continually meeting with cases in which the symptoms caused by lesion of some part of the nervous system constitute of themselves the only testimony to the specific nature of the disorder, and experience shows these to be quite as pathognomonic as affections of the skin."

BULBAR SYPHILIS.

Case V.—December 18, 1883, Julius L——, forty-seven years of age; has been a heavy drinker at times; had gonorrhœa; has a very suspicious pigmented eruption over both shins, and some cicatrices over the chest and back, which I consider indubitable evidences of syphilis. Considerable headache for past three years. Beginning of July, 1883, was affected by heat (?); went back to work on next day. July 26th suddenly complained at night of severe pain in left arm, and at twelve o'clock was seized with a fit which began with twitching in left hand, spreading to left side of face, when he lost consciousness; convulsion limited to parts mentioned and lasted about two hours. Since that time has been unable to work, except one week. Has had about nine fits of character described above, the leg never being involved. After last one (December 9th) he was delirious and violent, and was kept in a straight-jacket until morning. Speech almost lost for an hour after the attacks, but patient knew what he wanted to say. Has had a large number of attacks of twitching of left arm or left side of face without loss of consciousness. Last week had similar attacks in right arm. Yesterday and to-day right side of face alone has twitched (eight or nine times). Two weeks after he was taken sick had intense pains in soles of feet, lasting about three weeks. They began about 3 P.M., and lasted during the night; then had a peculiar dread come over him, as if something were going to happen. After the pains disappeared memory became very poor, so that patient forgot almost everything. Would sometimes walk around room all day, fumbling in his pockets as if looking for something. At times spoke incoherently.

Present condition.—Special senses normal; arms equal in strength, but rather weak for a man of his strong build; walks normally. Upper facial movements normal; lower facial muscles appear slightly paretic. The mind appears to act rather slowly; memory very much impaired; cries very easily; expression of face dull and lethargic. Tongue freely movable, except upward and downward, which is almost impossible; slight twitching of tongue on protrusion. Speech slow, thick, and hesitating; this has increased during past week. Sensation normal throughout the body.

On first examination urine contained large amount of sugar and considerable albumen. December 19th, 4 qts. urine, 10 grs. sugar to the ounce; December 24th, 2½ qts. urine, 2 grs. sugar to the ounce. December 17th, the patient was ordered iodide of potassium 3 j., t.i.d.; December 20th, 3 iss., t.i.d.; December 24th, 3 j. and bichloride of mercury gr. $\frac{1}{16}$, t.i.d. December 29th, sugar disappeared permanently; January 10th, considerable albumen; January 15th, no sugar or albumen. Has had no spells since December 26th; speech has improved very markedly, so that nothing is noticeable now, and memory improved to such an extent that he has returned to business. On February 23d I made another examination of the urine, and found no sugar, but a large amount of albumen. The mercury and iodide of potassium were then discontinued and the patient placed on digitalis and acetate of potash.

March 1st.—The quantity of albumen in the urine has diminished very much, but a moderate amount is still present.

March 8th.—Less amount of albumen present than at last examination; no casts; urine otherwise normal.

March 25th.—At 2 A.M. the patient, while asleep, was suddenly seized with a general convulsion, attended with

loss of consciousness. He rose early and dressed himself, but was then seized with another convulsion, and a third one at 9.45 A.M. I saw him at 10.30 A.M; he was unconscious, the pupils were moderately contracted. Convulsive movements noticeable in lower part of right side of face and the tongue, which kept twitching from left to right. The coma persisted until the next morning, when the patient became violently delirious, and attempted to jump out of the window, choke his brother, etc. During my visit in the afternoon, consciousness was partially restored for a few minutes. On the following day the patient was entirely rational, and complained of nothing except a general feeling of soreness. During the period of coma I ordered rectal injections (the patient was unable to swallow) of a drachm of iodide of potassium dissolved in an ounce of water every two hours. After the attack, albumen reappeared in large quantities in urine (nearly a quarter by volume), but this is gradually diminishing. For the past three weeks mercurial treatment has been used exclusively, and the patient is now in better condition than before the attack, even with regard to memory; he is now attending regularly to business.

In this case the lesion, in part at least, is evidently situated in the region of the medulla oblongata, and probably consists of small spots of softening due to endarteritis of some of the small vessels. The mental symptoms may have been due, perhaps, to slight changes in other vessels of the brain.

The case is interesting on account of its extreme rarity, and Fournier, despite his enormous experience, has never observed a case of diabetes in cerebral syphilis. In my opinion the albuminuria is due to the same lesion, as, I think, a renal affection may be excluded by the non-existence of casts (a large number of careful examinations were made), and the absence of cardiac hypertrophy or other signs of Bright's disease.

SPINAL SYPHILIS.

CASE VI.—A. C——, aged forty-six years; in November, 1880, had a sore throat which lasted until the beginning of March; had alopecia in the summer of 1881. In April, 1882, noticed that when the right foot was put on the floor the matting seemed very warm; then had soreness of the skin of right side of chest, belly, and back, and this kept on increasing until pain became intense, especially during the night. Then noticed a little lameness and stiffness of the left leg; at the same time was unable to pass water freely. Under the use of iodide of potassium the pains disappeared almost entirely, but he became unable to hold his water. After a few weeks the lameness of the left leg again appeared, and grew gradually worse until August, 1882, when he became unable to walk.

Present condition.—Head and arms normal; about three-fourths inch atrophy of left leg and thigh. Almost complete paralysis of left toes; slight power of flexion of ankle and knee. Sensation in this limb fair, but patient does not differentiate very distinctly the head and point of a pin on the sole of the foot. Right limb shows a fair amount of power, but not quite up to the normal (probably from poor general condition of the patient). Tactile sensation markedly diminished over entire limb, also moderate amount of analgesia. The anæsthesia extends up the right side of the abdomen to the floating ribs, and posteriorly as high as the middle of dorsal spine; no distinct zone of hyperæsthesia above the region of anæsthesia. Severe pains in the back and lower part of the chest, particularly at night. Very little control over bladder; has had several involuntary evacuations from the bowels. Examination of urine showed existence of cystitis. Patient had violent attack of gastric catarrh, with a temperature of 103°. After this disappeared under ordinary treatment, a mixture was given of iodide of potassium gr. xv. and ergot gtt. xxx. t.i.d. The latter was increased to one drachm, but discontinued at the end of a month. Kali. iodid. gradually increased to 3 iss. t.i.d., and October 15th combined with hydrarg. bichlorid. $\frac{1}{32}$ gr. t.i.d., and increased gradually to $\frac{1}{16}$ gr. At the beginning of October, strychnine $\frac{1}{64}$ gr., gradually increased to $\frac{1}{16}$ gr. t.i.d. Dry cups daily to spine for periods of two to three weeks, followed by intermissions of a week.

The power of the limb slowly improved, but at the same time spastic symptoms developed in both limbs, particularly the left. Enormous increase of patellar and Achilles tendon reflexes, also on tapping the front of tibiæ. Frequent twitching of the limbs at night. Improvement was gradual but steady (except for two periods when patient had a marked relapse on account of disobedience of orders concerning the amount of exercise taken), with the exception of the rigidity of the limbs, particularly the left one.

During the past month the patient has been placed on an exclusively mercurial course (bichloride of mercury, grain $\frac{1}{16}$ t.i.d.) and the rigidity of the limbs and intensity of the tendon reflexes have diminished very considerably.

This case is an interesting example of the rare form of disease known as spinal hemiplegia (more properly, in this instance, hemiparaplegia) and is undoubtedly due to a myelitis limited to the left half of the cord in the middle dorsal region. The initial history of the disease would seem to indicate that the circumscribed myelitis has been caused by the pressure of a gummy pachymeningitis in this region. I am sorry that lack of time has prevented me from entering more fully into the details of this case.

PRIMARY CRURAL ASYMMETRY.

BY HENRY LING TAYLOR, M.D.,

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THERE is a natural equilibrium between the two great and opposing biological forces, namely, the centripetal one of heredity, tending to preserve the type, and the centrifugal one of variation, tending to modify it. In studying the evolution of the human form we find that civilization and refinement come in as disturbing factors, favoring variation.

It has long been known that the human form is not strictly bilaterally symmetrical. We are right- or left-handed, *i.e.*, the right or left side of the body is more powerful, more skilful and larger than the other. Photographers and portrait painters accept the fact that the lateral halves of the face differ in form and expression, and pose their subjects accordingly. I have somewhere seen curious statistics concerning the relative lengths of the index and ring fingers on the two hands, showing that in some persons the index fingers were longer, in others the ring fingers, while many had a longer index finger on one hand and a longer ring finger on the other. The examination of a few hands will show any one that there is no uniformity about it. A gentleman to whom I spoke of this subject, gave a singular illustration on his own person. He said he had always been annoyed in wearing spectacles by the circumstance that one of his ears was so much higher than its mate that the frame never rested evenly on his nose.

Although these or similar facts have long been known, the medical profession was quite taken by surprise when it was announced, a few years ago, that it was not very uncommon for persons, not the subjects of disease or injury, to have lower extremities of unequal length.

This discovery was made by some of the surgeons of the Pennsylvania Hospital while studying paradoxical results in the measurement of limbs after fractures of the femur.[1]

[1] See articles by Dr. Wm. C. Cox, Am. Jour. of the Med. Sci., April, 1875, p. 438; Dr. Jarvis S. Wight, Archives of Clinical Surgery, February, 1877, p. 283, and Proceedings of the Medical Society of Kings County, N. Y., January 21, 1878; Dr. Wm. Hunt, Am. Jour. of the Med. Sci., January, 1879, p. 102; Dr. Thomas G. Morton, Surgery in the Pennsylvania Hospital, 1880; Dr. J. B. Roberts, Philadelphia Medical Times, August 3, 1878.

The fact has been known and recognized in the treatment of cases by Dr. C. Fayette Taylor (from whose practice I shall draw my illustrations) for about fifteen years,[1] having been observed by him independently of its discovery by others, and while studying quite a different class of cases, namely, those of lateral curvature.

Before going further, I wish to emphasize the fact that, far from being a simple matter, the accurate measurement of the extremities, even where there is free joint motion, is extremely difficult. Sufficient proof of this is afforded by the frequent instances of wide differences in the results obtained by even eminent surgeons in the measurement of the same case, and I could adduce curious and striking examples of this, if it were worth the while.

In undertaking to measure the lower extremities of a recumbent person, the first object must be to level the pelvis. We must see that a line joining the anterior spines of the ilium cuts the median plane of the body at right angles, and this relation must be preserved while the measurement is being made. Merely to drag down by the feet and observe whether the soles are on a level, gives one no information whatever. It follows that an assistant to hold the pelvis straight is desirable, if this method be employed. The tape for many reasons is not satisfactory, even when proper precautions are taken, and a number of instruments have been devised to take its place.[2]

No instrument, however, can obviate the main difficulty, namely, the absence of definite corresponding points between which to measure. Sir James Paget, with his usual good sense, writes in a letter to Dr. Wm. Hunt, dated February 5, 1875: "I very rarely use measuring tapes or anything but the eye. The eye is surely more exact."[3]

Dr. Taylor has employed for many years the following method, which is at least as accurate as any other, and perfectly easy to apply. The patient, barefooted and with the hips exposed, stands with his back to the examiner. Care is taken that the heels are near together and the knees straight. If, after careful inspection of the contour of the hips and loins, which alone will nearly always reveal the presence or absence of crural asymmetry to the trained eye, while the patient stands upright, the edges of two equally thick rules, or the radial edges of the flatly extended hands, are pressed into the flanks just above and, guided by the iliac crests, any difference in their level will be easily appreciated. If there be a difference, its amount may be determined by placing increasing thicknesses of thin pamphlets, or similar objects, under the foot of the short side, until the two hands of the examiner, pressed over the iliac crests, are on a level. Now, if the thickness of the pamphlets be measured, we shall have quite an accurate notion of the amount of shortening. This method presupposes that the acetabula and ilia are vertically symmetrical, and I believe that they approximate nearly enough to this standard not to invalidate results obtained in this way, and, at any rate, the amount of pelvic obliquity is the really important point to be ascertained. This method is not equally applicable in all cases, but it is simple, convenient, and sufficiently accurate for the cases uncomplicated by joint troubles or paralysis, which we are now considering.

The measurements which I shall now proceed to give were mostly found by this plan, though some were obtained with the tape in the usual way, and in a few cases both methods were employed. I, myself, have seen and measured a good proportion of the cases given, the others are taken from notes scattered over the last six years. The notes were not systematically taken, and the cases given do not include a great many seen where no note was kept. Many of the cases have been under observation for several years, and have been repeatedly measured. A dozen or more have been photographed, and here the lateral tilting of the pelvis is easily apparent, and also the improvement of the form when the pelvis is horizontalized. I have taken no account of differences of a fourth of an inch or less. The cases have been drawn from all parts of the United States and Canada, and represent the well-to-do class.

No.	Sex.	Age.	Short leg.	Inches shortening.	No.	Sex.	Age.	Short leg.	Inches shortening.
1	F.	11	L.	¾	17	F.	14	L.	..
2	F.	4	L.	½	18	F.	11	L.	⅛
3	F.	12	L.	¾	19	F.	11	L.	½
4	M.	..	R.	1¼	20	M.	9	L.	¼
5	F.	14	R.	..	21	M.	16	L.	1
6	F.	13	L.	½	22	F.	15	L.	⅝
7	F.	12	R.	½	23	F.	15	L.	1¼
8	F.	16	L.	¾	24	F.	8	L.	⅛
9	F.	17	L.	¾	25	M.	8	L.	½
10	F.	13	L.	½	26	F.	18	L.	1¼
11	F.	7	L.	⅛	27	F.	12	L.	¼
12	F.	15	L.	⅛	28	F.	60	R.	½
13	M.	5	L.	⅛	29	F.	13	L.	⅛
14	F.	14	L.	⅛	30	F.	30	L.	1¾
15	F.	..	L.	⅛	31	M.	43	L.	1
16	F.	13	L.	½	32	F.	8	L.	⅝

[Since compiling the above table, two months ago, I have seen two cases of primary crural asymmetry in females of sixteen and twenty-five years of age. The left leg was half an inch shorter in the former and an inch and a quarter in the latter.]

As will be seen by the table this study has been mainly directed to young people (mostly girls) in the growing period. Of the thirty cases whose ages are known, all but three are under twenty years of age, and of the entire number all but six are females.

The left leg was shorter in twenty-eight cases, the right in four. This is a very striking result, and one directly opposed to the experiences of others.[1] It will have a bearing in the discussion later on.

Another striking result is the large size of the difference found in most cases. It is not a question of eighths or fourths of an inch; in sixteen cases the difference is over half an inch, and in six it is an inch or more.[2]

Crural asymmetry does not seem to depend on the rate of bodily growth. Some of the patients tabulated had grown rapidly, others slowly, while many had developed at about the average rate. No. 21, a young man of sixteen, whose left leg is an inch shorter than its mate, rather more than less, is only fifty-eight inches tall. The majority of these children compare well with others of their age and circumstances, in respect to general health and development. Many of them, however, have imperfect and asymmetrical chests, partly due, in many cases, to changes secondary to pelvic lateral obliquity. Out of a few measurements made, I have found a difference in the length of the arms, measured from the tip of the acromion process to the end of the middle finger, in two cases. In Case 12, the left arm was ⅝ inch shorter than the right, and the mother had noticed that

[1] Dr. T. M. L. Chrystie remembers a particular case of this kind in Dr. Taylor's practice, which came before 1873, and the trouble was then recognized. Dr. Chrystie says other cases were seen in Dr. Taylor's office before that.

[2] Vide THE MEDICAL RECORD, August 6, 1881, Dr. T. H. Howgate; Am. Jour. of the Med. Sci., January, 1877, Dr. Stacy B. Collins; Lancet, April 27, 1878, Charles Roberts, F.R.C.S.

[3] Vide paper by Dr. Hunt, Am. Jour. of the Med. Sci., January, 1879.

[1] Dr. Frank Hamilton found the left limb longer in most cases (letter to Dr. Wight). Proceedings Medical Society County Kings, quoted in the Lancet, April 6, 1878, page 506.

Mr. Charles Roberts, in the Lancet for April 27, 1878, says: "The limb possessed of least muscular development will be found the longer of the two."

Drs. Cox, Wight, and Morton (loc. cit.) found the shortening on the right side in the majority of their cases. These results were obtained in males, and all but Dr. Morton's mostly in adults.

[2] Out of 637 cases reported by Drs. Cox, Wight, and Morton, there was asymmetry in 370 cases, but this amounted to more than half an inch in only twenty-eight cases.

in fitting dresses for her daughter she had always been obliged to shorten the left sleeve. In Case 13, the right arm was found to be ⅝ inch shorter than its mate, though the left leg was the shorter.

Accurate measurements of the length of the arms are even more difficult than those of the legs, which is the less to be regretted, as moderate inequality in the lengths of the upper extremities is of no practical importance. I have noticed that in a few of these cases there seemed to be a general ill-development. The chest and loins were asymmetrical and the former flat or narrow (I am not now speaking of the effect of secondary lateral curvature), the whole form devoid of grace of line and movement, and the circulation poor, as shown by cold feet and hands, bluish skin, and "goose-flesh." These were apt to have particularly intellectual parents.

How do these cases come under the notice of the practical physician? What do they come for? In most instances the parents' attention is attracted by some of the evidences of a lateral spinal bending, due to the pelvic obliquity. It is a drooping or bulging shoulder, a peculiar attitude of the body or head, or an abnormally curved spinal column that leads the patient's friends to seek a physician's advice.

In other cases it is a peculiar or awkward gait, or an undue tendency to stand on one leg. In Case 30, a single lady of thirty, the simple question was, "Why do I tire so easily in walking?" The 1¾ inch difference in the lengths of the lower extremities found answered the question. It is not easy to walk constantly along a side hill. In spite of this considerable difference this lady had no lateral curvature.

This brings us to the practical core of the matter. Crural asymmetry is chiefly important from the pelvic obliquity which it necessitates, giving as it does a strong bias in the growing period, when there is increased flexibility of the spinal column, toward a lateral curvature. I say a "bias," because if the spinal column and muscles be exceptionally strong this tendency will be resisted, and the patient once tided over the vulnerable period—pubescence—the danger is over. The accompanying figures (1, 2) show how a lateral curvature must ensue

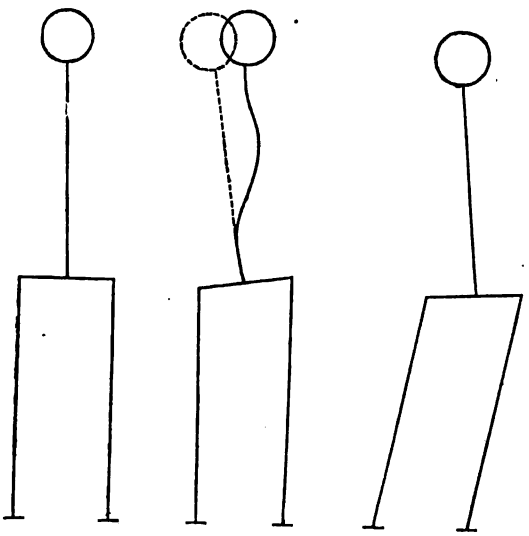

Fig. 1. Fig. 2. Fig. 3.

with an oblique pelvis, from the instinctive tendency to carry the head over the centre of gravity. Now, whether this slight bending shall go on increasing, necessitating rotation and a permanent curvature, will depend on the individual susceptibility to such a bias. As a matter of fact, in nearly one half of the cases there was no permanent curvature. In a few cases the pelvic slant is diminished by carrying the pelvis toward the long side (Fig. 3), which, as it necessitates the carrying of the head and shoulders toward the opposite side, to preserve the equilibrium, enables the patient to stand and walk with a straight back. The following case walked and stood in the manner described: No. 31, aged forty-three, the father of a little patient under Dr. C. Fayette Taylor's care for hip disease. While Dr. Taylor was examining the little girl one day, she suddenly exclaimed to her father, a large, well-developed man, "Why, papa, you are not straight either!" On looking at the gentleman Dr. Taylor detected pelvic obliquity, and on examination discovered an inch difference, yet there was no lateral curvature and the gentleman had been entirely unaware of his abnormality.

Pelvic obliquity, however, in the vulnerable period is a threat against the symmetry of the spinal column, and is to be diligently guarded against. The simple remedy is to place sufficient extra sole under the shoe of the short side to level the pelvis. In cases taken early, before there is any permanent curvature, *i.e.*, when the spine can be as easily bent and rotated in one direction as the other, levelling the pelvis until growth is attained is often sufficient to prevent deformity, though not always so, as children with horizontal pelves may acquire lateral curvature. When a permanent curvature is already present, levelling the pelvis should be only accessory to mechanical means, and is never in itself sufficient. After the patient has attained her growth, the danger of lateral curvature is passed and the high sole may be discarded, unless, from excessive difference in the length of the limbs or from a susceptible nervous system, the unnatural walking be too great a tax on the strength.

There is a common and ignorant prejudice, that the wearing of a high sole will tend to make the leg still shorter. It is hardly necessary to observe that the leg cannot be driven into the body like a pin into a potato, and it is hardly reasonable to suppose that a procedure which, by restoring pelvic horizontalism, puts the muscles into their proper relations and permits of the leg being used to the greatest advantage, would involve a retardation of growth. But what is more to the purpose, I can adduce an instance of the contrary effect.

Case 3 came at twelve, with a difference of over three-fourths inch. She wore the high sole for a considerable time. At seventeen years of age the difference had so diminished as to be barely perceptible. Similar instances have been observed. Secondary crural asymmetry due to joint or bone disease, or paralytic retardation of growth, of course, involves pelvic obliquity and its accompanying dangers. Many of the points made above apply with equal force in these cases.

In concluding, I must urge the importance of determining the presence or absence of pelvic obliquity as a necessary preliminary to the treatment of every case of lateral curvature of the spine.

There is an almost uninterrupted procession of these cases coming to our office, who are wearing or have worn plaster jackets or mechanical appliances to straighten the spine, when the attempt was about as hopeful as that of the traditional individual who tried to lift himself over a stone wall by pulling at the straps of his boots, unless the sloping pelvis was first made level.

I also wish to call attention to the light which these cases throw on the etiology of lateral curvature, though I have no time to develop this subject here. Dr. C. Fayette Taylor estimates that half the cases of lateral curvature, as met with in his practice, occur with a sloping pelvis. In these cases, certainly, the primary curve is in the lumbar region, and he believes this to be equally true of all ordinary cases.

Does not the large preponderance, in the table, of instances where the slope is to the left, explain, partially at least, the long-recognized fact that in the majority of cases of lateral curvature the convexity of the dorsal curve is to the right, the lumbar to the left?

A CASE OF DISTORTION AND CICATRICIAL STENOSIS OF THE TRACHEA, FOLLOWING THE PROLONGED USE OF A TRACHEOTOMY TUBE.

By GEORGE M. LEFFERTS, A.M., M.D.,

PROFESSOR OF LARYNGOLOGY, COLLEGE OF PHYSICIANS AND SURGEONS, NEW YORK

DURING the past two or three years attention has been so frequently, forcibly, and I may be permitted to add, so rightly, called to the dangers incident to the prolonged sojourn of a tracheotomy tube within the walls of the trachea after the operation, and the subject is in itself one of so much importance, hardly receiving as yet, if we may judge from the published reports of even recent tracheotomies, the general attention that it merits, that the following practical illustration of these dangers will not be without value as a warning.

Literature concerns itself mainly with the immediate—as far as the trachea is concerned—bad results of the operation, or, perhaps better, its dangers, viz., granulation tumors, granulation stenosis, prolapse of the tracheal walls, atrophy of the muscles of the glottis, and certain, as yet undefined, reflex nervous disturbances of trachea and larynx; while but few cases of the remote effects attributable to the same primary cause, and only discoverable, as a rule, by the aid of the laryngoscope, are upon record.

The present case will therefore, on this account alone, not be without interest. I submit it without comment, so well does it tell its own story.

A medical student, aged twenty-five, consulted me incidentally in regard to a peculiar whistling noise that he made during inspiration, especially after exertion, and a difficulty that he at times experienced in clearing his throat of accumulated mucus. The conditions were old ones, and gave him no particular annoyance. Time had established tolerance.

The laryngoscope showed, to my own surprise as well as his when I informed him of the conditions, a stenosis of the upper trachea to the extent of at least two-thirds of its normal lumen; the lesion was evidently of long standing.

Bear in mind that the patient was a strong, well-developed young man, with a bright, fresh color, who had never been conscious of any respiratory difficulty.

A striking example, then, of the curious tolerance developed by nature, in cases of slowly developing stenoses of the upper air-passages, to the obstruction to the respiratory current and consequent diminished supply of oxygenated air to the lungs.

The stenosis was due, as is shown in the drawing that I made at the time of examination, first, to a marked depression inward of the anterior arch of the cricoid cartilage; second, to a lateral prolapse of the tracheal wall; and, third, to strong cicatricial bands—several in number—which ran, in an antero-posterior direction, from and below the convexity of the depressed portion of the cricoid cartilage to the posterior tracheal wall. The opening for respiratory purposes thus corresponded to less than one-half of the normal glottic opening.

When three years of age the student was tracheotomized for the relief of so-called diphtheritic croup. The tube was worn without intermission, except for cleansing purposes, for nearly eight years. Why it was not removed earlier, he cannot tell me. A depressed and irregular cicatrix over the cricoid cartilage, nearly in the median line of the neck, marks the site of the operation.

TRACHEOTOMY IN A DIPHTHERIA CASE UNDER TWO YEARS SUCCESSFUL.

By NATHAN MAYER, M.D.,

HARTFORD, CONN.

THE initiatory history of the case runs like this: On December 28th last, Mrs. S——, whose mother I had been attending for an acute bronchitis, called my attention to her little girl Bessie, a well-developed child, aged one year and ten months. The child had been depressed and sleepy for several days, with loss of appetite and considerable fever. The probabilities of worms and difficult dentition were discussed, and as no special organ could be fairly held responsible for the condition, the babe was left alone for the present. On the day after the same state was found, but somewhat more pronounced. A little aconite was recommended. Next day patches appeared in the throat, a clearly margined ulcer on one side, and an extensive but thinner membrane covering the other tonsil and the soft palate. At the same time the cervical glands under the angle of the jaw were swollen and painful. Tincture of iron was used in the Jacobi manner, and the throat gently brushed twice a day with a solution of sulpho-carbolate of iron in glycerine. The following day the slough had come away from the one tonsil, leaving a bare granulating surface, and in addition to the membrane on the other side, some irregular patches were perceptible on the pharyngeal wall. The voice was entirely gone, but breathing did not seem much impeded. The steam chamber with lime vapors was added to the treatment, and turpentine applications to the throat. Next day I was summoned early, and in anticipation of the state of the case, took with me chloroform and a small rubber tracheotomy tube. When I arrived the child was in a state of approaching asphyxia. The eyes dull, the lips blue, the countenance livid, extremities cold, and only an occasional inspiration, which was forced with all the energy of the muscles of the chest, throat and countenance. The father, a lawyer and a gentleman of great decision, said: "Do something to relieve her, even if she doesn't get well. Open her throat." I at once seized the child and carried her into next room, placed her on the washstand with her head hanging down toward the window, and tore open her clothes. She began some faint struggles, so that I gave her a few whiffs of chloroform and prepared to operate. One moment I paused, thinking she was dead. Then I made a quick incision from the base of the larynx almost to the sternum, and spreading the skin with my fingers rapidly endeavored to bare the trachea. I seized this between my left finger and thumb to steady it, and hesitated once more, thinking the child moribund. Then opening the trachea, and indifferent to the rather free hemorrhage from the parts around, I introduced my dilating forceps, and between the branches pushed in the canula. A spray of blood responded, and the whistling respiration, which I assisted by manual pressure on chest and abdomen, was attended by similar spray from the tube for some minutes; and for several hours bloody froth was thrown out occasionally with the expiration, and always with the cough.

The rest is very simple. In a few hours the child seemed to regain regularity and ease of breathing. It lost the livid and blue tinge, coughed frequently, expectorating through the canula, and, though feverish, with high pulse and temperature, yet attained a certain degree of comfort. Alimentation by the rectum was undertaken, but caused vomiting which nearly dislodged the canula, and brought out the only shreds of membrane which were voided that way. If any loosened previously and were coughed up they must have been swallowed, as small children usually dispose of their expectoration. Medicine and brandy were continued by mouth, and swallowed with some difficulty, as well as very small portions of milk.

Immediately after the operation the child was returned

to the steam cabinet, and kept there for the next fortnight. In about five days the temperature and pulse subsided; more milk, beef-juice, and a little egg were swallowed, the iron was discarded, and bits of crackers voluntarily taken. The cough proved frequent and troublesome at this time, mucus of a certain thickness and tenacity being presented at the mouth of the tube, and drawn back several times before ejection. Frequent cleanings and withdrawal of the inner canula became necessary. The wound around the mouth of the canula looked well, never exhibiting distinct signs of diphtheritic supervention. On the tenth day the tube was experimentally withdrawn, and the parts joined together with a plaster. The child seemed uneasy and struggled as if it did not get air enough, and when the experiment was continued, began to look a little blue. At the same time no sound issued from the larynx. So the tube was introduced once more. The parents were directed to make frequent trials by withdrawing the inner tube and stopping the outer, which was fenestrated so as to permit the current of air to pass through the larynx. These experiments gradually accustomed the organ to the performance of its usual functions, evoked moisture, and when two days after the tube was again withdrawn and the opening plastered up, the little patient breathed easily and well. But no sound was as yet audible. Finding the wound well contracted, and the canula difficult of re-introduction, I left it out, and matters went on very smoothly. On the sixteenth day I heard the little one say, "papa" and "mamma," and knew that the cure was complete. In the last seven days the appetite had increased, the usual playfulness returned, and one day I found that I could interest the little one deeply by boring a hole in the throat of a toy elephant, and inserting the inner canula. On each succeeding visit I was presented with the elephant to carry out the same operation.

It is unfortunate that the temperature was not measured, on account of the restlessness of the little patient, and the urgency of the other symptoms. The pulse ranged at 120, and during the critical days was beyond counting.

The lessons of this case are to me: that, though authors do not commend late operations or those performed on children under two years, yet such may be successful, and when the parents are in accord, should be attempted. In this connection I may refer to the case of Dr. G. F. Shrady, a successful tracheotomy on a child of eleven months, and also to eight more all under one year, which he cited in his report of that case two years ago (MEDICAL RECORD, vol. xxii., p. 512). These nine are seemingly all that are known to literature at present. The canulas used in these cases must have been smaller than any ordinarily found in the market.

PILOCARPINE IN THE TREATMENT OF DEAFNESS.—For all recent cases of deafness due to labyrinthine disturbances, whatever the primary cause may have been, Politzer tries the subcutaneous injection of a two per cent. solution of the muriate of pilocarpine. He injects four drops at first, and gradually increases the dose to ten drops daily. He gets fairly good results in about one-half of the cases. I have seen three cases of persons totally deaf, who, after being treated in this way, could hear and understand loud speech spoken at the distance of a few inches from the ear; and Politzer has had one case of perfect recovery of the hearing after it had been absent for three years, and several other very satisfactory results, following the use of this drug. He is about to publish the results of his experiments, with the history of some of the cases. It is not known how pilocarpine acts in these cases, but the benefit derived from its use is certainly great in some of them.—Vienna Correspondent of *Berlin Med. and Surg. Journ.*

FLORIDA AS A HEALTH RESORT.

BY G. HALSTED BOYLAND, M.D., M.A., ETC.,

BALTIMORE, MD.

THE numbers of phthisical patients who return from the "land of flowers and sunshine" in their coffins, after paying tribute to grasping officials and rapacious landlords, present the question very seriously whether this climate is beneficial in advanced pulmonary disease, and whether such a climate is beneficial in any stage of certain maladies of the respiratory tract.

The immunity from attacks of rheumatism and neuralgia enjoyed by patients subject to them in the North, indicates the true line of diseases likely to derive most benefit from a Southern climate. The air of Florida during fair weather acts upon the skin and secretions in just the same manner as iodide of potassium and diaphoretics. The numerous sulphur baths in different sections of the State form a valuable adjuvant to open-air treatment. The peninsula of Florida, situated as it is between the Atlantic Ocean and the Gulf of Mexico, would naturally be well watered by the many bays, inlets, and brackish rivers that mouth on both shores. When, however, the extensive fresh lakes, rivers, and springs are noted, with the flatness of the mainland, the general character of the country is swampy, with the exception of a few slightly elevated sandy districts where pine groves abound. The latitude being the same as that of Sicily, Northern Egypt, and India, it bears, in point of climate, a marked resemblance to these countries, except that the changes in Florida are more sudden and decided than in these. The intense heat of summer makes this State an unfit residence for invalids during that season, and it is not so much the intensity as the long-continued heated term, that would gradually overpower and finally exhaust a system already weakened by disease. There remain, then, but several months of the year during which Florida is at all suited to a certain class of phthisical cases; these are December, January, February, March, and, at most, April. Patients coming during the autumn would be likely to experience some hepatic or splenic trouble in the form of endemic fever, such as malarial, typho-malarial, or sometimes typhoid, including the dengue fever now so common, and in which there is a malarial element.

If, as contended, these diseases are of a much milder type and run a more rapid course than they do farther North, they are certainly more prevalent here than there. In fact, not a single family who came South in November, 1883, escaped an attack of fever, among those with whom the writer has conversed on the subject. Some coming as late as the first half of December were similarly affected. Admitting these cases to have been mild, they were, nevertheless, still greater demands upon constitutions already depleted.

In Fernandina, Jacksonville, and St. Augustine the frequent fogs and mist from the ocean tend to make the climate damp, to which may be added the January rains; whilst the too-bracing influence of the sea air, at times cold and windy, causes an unfavorable reaction upon the pneumogastric and recurrent nerves. This is especially noticeable in asthmatics, and renders the interior of the State more suitable to such patients. The climate there is more even and freer from humidity; the country, though level, more elevated, sandy, and piney; the atmosphere impregnated with a resinous odor, which may be detected away from the St. John's River in localities a few miles east or west, near Palatka, Sanford, or Enterprise. Gainsville, near the middle of the State, and about midway between the Atlantic Ocean and the Gulf of Mexico, is a typical place of the kind, being sufficiently remote from these great bodies of water to escape the full force of high winds. The drainage here, as in all Florida towns, leaves much to be desired, owing, doubtless, to the level character of the land, and the great expense that would consequently be entailed in constructing a proper system of sewers. The advantages of Gainsville are somewhat

counterbalanced by the large number of phthisical patients who congregate there during the season, and the almost daily deaths, which exert a depressing influence, morally, upon other patients not phthisical. If a seaboard resort is deemed desirable in some cases, such should be sent on the Gulf coast to a place like Cedar Keys or Tampa; both are protected from the northers which prevail on the Atlantic side, and the air of the Gulf is milder and more balmy.

The changes that occur on the Atlantic coast are aptly illustrated by the following brief note: St. Augustine, Sunday, December 16th, ice; Tuesday, December 18th, thermometer 75° in the shade; Wednesday, December 19th, thermometer 80°; January 6th, thermometer 24° above zero, pump frozen. The breezes sweeping across Florida from the Atlantic to the Gulf assume at times the character of high winds, another reason why this climate is not suited to advanced stages of pulmonary disease.

The question when to come to Florida, and where to go, must be answered according to the requirements of each individual case; but, as a general rule, no case in which the cachexia has made its appearance—and I have seen such here frequently—will have sufficient general health to allow the affected organ to profit by the climate; in other words, the constitution would not have enough of the *vis medicatrix naturæ* to withstand any intercurrent complication dependent upon weather or miasma, and such cases are much better off at home, surrounded by comforts, friends, and under skilled medical attendance. The old panacea of "going South" has of late years too often been synonymous with getting rid of a hopeless case; and the profession are gradually becoming alive to the fact that there is more oxygen in mountain air than in low districts, whether seaboard or inland. To what range of diseases then, is a southern climate adapted? To a *comparatively limited one.* First of all, to rheumatics and cases of confirmed neuralgia, then to all cases whose general health is sufficient to stand the climate, and upon whom it is desirable to act through the skin and emunctories—notably in gout, arthritis deformans, and syphilis. Such patients, by guarding against exposure, remaining indoors and keeping warm during the cold and rainy weather, derive great benefit during the warm days, as the skin is kept in a gentle action and the elimination of morbid process can be aided by drinking the sulphur and alkaline waters so numerous in Florida, and by bathing in the same. The writer has in mind a case of chronic rheumatism radically cured by a visit of some weeks at the Green Cove Sulphur Springs, on the St. John's River. The remarkable point in this particular case is, that after taking the baths an abscess developed, and ran the regular course, upon the left thigh of the patient on the lower third; this had scarcely healed before a second one appeared in nearly the same position on the right thigh. This was some years ago, and from that day to this he has never had an attack of rheumatism. The case was one of chronic constitutional rheumatism, and that the abscesses bore a direct relation to the malady is proven by their appearing on both sides at almost the same time. This patient now enjoys perfect health, spending his winters in Florida.

Interesting cases in other diseases could be given at length; but let us pass on for a moment to the *tractus respiratorius*, for it is with this that Florida has become inseparably linked in the minds of many.

Those will derive benefit from a sojourn here during the winter months who from family history may become phthisical; those, provided they are not too advanced in years, who are subject to bronchitis, bronchial catarrhs, laryngitis, to bronchial and laryngeal troubles generally, at different seasons of the year, more especially during the cold months and early spring. To phthisical cases in the *first* stage only; too many come here in the second stage, who, unable to withstand the influences of the climate, now depressing and then exhilarating, pass more rapidly into the third stage than if they had sought the mountains, or even remained at home. The climate of Florida as a prophylactic is perhaps more valuable than as a palliative—*curative* I do not believe it to be—that is, as a prophylactic in cases where bronchial or lung disease may for scientific reasons be anticipated. Patients of this class are not only able to spend most of their time out of doors, but also reap the advantages of having the mind diverted by moderate exercise, walking, fishing, shooting, etc. The scenery of Florida, which is unique and beautiful, also the diet, into which oranges fresh from the trees enter largely, are important factors in treatment.

Those in health who come simply to escape the cold weather of the North, should remember that a summer in the North followed by a winter in the South, is equivalent to a year of perpetual summer, and consequently the system is kept below par; having been deprived of the bracing influences of winter, it is thus more susceptible to diseases of the respiratory organs upon returning to northern latitudes. This is also noticed in laryngitis. A gentleman who came South a few years ago for a slight affection of the larynx, enjoyed relief from all inconvenience while remaining in Florida, but upon returning North, early in the summer, suffered a relapse, and has been obliged to spend his winters here ever since. This is the history of many. The climate is palliative, not curative. This much is certain, that a southern climate renders the system, be it in a physiological or pathological condition, more sensitive to cold.

In closing this paper it will be observed that the views expressed with reference to Florida as a resort for invalids are somewhat different from those popularly entertained about this portion of the "sunny South;" they are, nevertheless, based upon personal experience, individual observation, and inquiry.

To get beneficial influence from a southern climate the party must be first an invalid, and secondly, have sufficient general health to withstand the changes from warm to cold, from dry to humid. As the cold is never intense and can be easily guarded against, it is rheumatoid patients and cases of chronic neuralgia, syphilis, and gout that will do best in Florida, and it is to these that the climate is suitable rather than to phthisis.

ST. AUGUSTINE, FLA., January, 19, 1884.

ARTERIO-VENOUS ANEURISM OF THE COMMON CAROTID ARTERY AND INTERNAL JUGULAR VEIN.—Dr. Lewis A. Stimson reports, in the April number of *The American Journal of the Medical Sciences*, a case of traumatic communication between the left common carotid artery and the internal jugular vein. The point of communication between the two vessels appeared to be not more than three-fourths of an inch below the bifurcation of the artery, and perhaps not more than half an inch, and therefore the application of a ligature to the common trunk on the distal side of the opening, in addition to the necessary one on the proximal side, seemed too hazardous to be undertaken. The alternative of placing the second ligature upon the internal carotid, with or without a third upon the external carotid, was also rejected, and Dr. Stimson determined to tie the artery at one point only, and that as near to the opening on the proximal side as possible, hoping either that the distal clot would extend far enough to close the opening, or that the reverse current through the internal and external carotid would prove too slight to cause inconvenience. Seven weeks after the operation the thrill was recognizable only over the seat of the opening, and could be arrested by moderately firm pressure at that point, or by deep pressure behind the angle of the jaw; it was steady and continuous. The portion of the anterior temporal artery visible on the side of the forehead was notably enlarged, and pulsated strongly; its pulsation was arrested by distal pressure.

Progress of Medical Science.

CORTICAL LESIONS OF THE BRAIN.—While anatomical study, demonstrating a connection between various organs of the body and definite regions of the surface of the brain, may furnish grounds for *à priori* reasoning as to the function of those regions; and while physiological experiments upon animals may afford valuable suggestions as to the probable effect of limited brain disease in man, an accurate determination of the question of localization can only be reached by a study of clinical cases. The appreciation of this fact has led Dr. M. Allen Starr to collect, in the April number of *The American Journal of the Medical Sciences*, the cases on record in American journals, in which a limited area of disease of the cortex, whose position was determined by a careful autopsy, had given rise during life to definite symptoms. From the comparison and classification of these cases with the foreign cases collected by Charcot, Ferrier, Nothnagel, Exner, Wernicke, and others, certain general conclusions, which are of great practical importance, have been reached, and it is now possible to refer many symptoms occurring in the course of brain diseases to the destruction of a definite area of the surface. For instance, in reviewing the cases of lesion of the *frontal region*, it is noticeable that decided mental disturbance occurred in one-half. This did not conform to any one type of insanity. It is rather to be described as a loss of self-control, and a consequent change of character. The other symptoms are chiefly negative. The absence of disturbances of motion and sensation and of the special senses warrants the statement that the motor and sensory areas of the cortex do not lie in the frontal region, and that the diagnosis of lesions of the frontal convolutions must rest upon the presence of general symptoms of cerebral disease and of mental disturbance, and also upon the absence of motor and sensory disturbance. Lesions of the *temporo-sphenoidal lobes* may exist without giving rise to any local symptoms. Symptoms of disturbance of the special senses of hearing and smell, and loss of memory of perceptions acquired through these senses, may be caused by lesions of this region; odors being probably perceived in the inner sphenoidal convolutions, and sounds in the first temporal convolutions. The areas connected with motion, with general sensation, and with vision, do not lie in the temporal lobes. The importance of a careful examination of all the special senses in any case of suspected brain disease is enforced by the probability that some of the sensory areas lie in this region; but that the symptoms produced by their destruction have been hitherto overlooked. The most prominent local symptom of lesion of the *occipital lobes* is a disturbance of vision—blindness. Absence of motor or sensory disturbance is also noted. A study of the cases warrants the conclusions that the visual area lies in the occipital lobes, and that the areas governing speech, motion, general sensation, and non-visual sensory impressions, lie elsewere.

VERATRIA IN MUSCULAR TREMOR.—According to Dr. Feris, after small doses of veratria each muscle, when stimulated, reacts more vigorously, and the contraction lasts longer than in the normal condition. The increased duration of the single contraction is shown not only by the greater length of the myographic curve, but also by the fact that while thirty stimuli per second are needed to set a normal frog's muscle into tetanus, some ten suffice to tetanise the veratrized muscle. The tremors of alcoholism, of central nerve-degeneration, of fever, etc., are due, according to the author, to a condition of muscular contraction in which the impulses are not sufficiently rapid to give rise to tetanus. This may be owing to defective innervation as well as to muscular degeneration. Dr. Feris has used veratria in such tremors, giving it in pills of half a milligramme each($\frac{1}{120}$ grain), of which four were taken daily at intervals of an hour. Of thirteen patients so treated ten were suffering from alcoholism, two from disseminated sclerosis, one from sequelæ of typhoid. In all the tremors disappeared entirely in five to fifteen days. Improvement appears after the first day, as is shown by making the patients write before and (one hour) after each pill. The treatment should be kept up for ten days at least, or relapse may occur. The cases continued well for two months at least after the veratria was stopped.—*The Practitioner.*

THE DIAGNOSIS OF TYPHUS FEVER.—Dr. A. Randolph Mott, in the April number of *The American Journal of the Medical Sciences*, gives an analysis of 108 cases which were mistaken for typhus fever and sent as such to the Riverside Hospital, New York, during a period in which 771 cases of typhus fever were treated there. These patients had been seen by one or more physicians, and in certainly half the number the unqualified diagnosis of typhus fever was made; the rest were considered to present symptoms sufficiently suspicious of this disease to warrant isolation for further development, and were, therefore, admitted to the quarantine wards of the hospital. The revised diagnosis showed nearly every disease which writers mention as liable to be confounded with typhus fever; and the frequency with which any disease was mistaken does not indicate the comparative closeness of its resemblance to typhus. Thus, there were three cases of erythema, and but one of measles, yet all writers declare that the latter is sometimes distinguished from typhus fever with much difficulty. Dr. Mott makes a very instructive analysis of the symptoms which led to the errors of diagnosis, which, in the case of small-pox, for instance, caused 8 cases to be sent to the hospital as typhus, and 13 cases of typhus to be sent as small-pox; and in the case of typhoid fever, 2 cases proved to be typhus, while 12 cases of supposed typhus turned out to be typhoid.

A NEW METHOD OF REMOVING NASAL POLYPUS.—Dr. Bell, in the *Canada Med. Rec.*, February, 1884, describes a method of treating polypus which he has practised with the very best results in several cases. He claims that it obviates any trouble from hemorrhage, which is frequently the case when the forceps or hook are used, that it is painless and very simple. He gets his patient to blow strongly through the affected nostril, closing the other with his finger. The polypus will be brought down so that it can be easily seen through the external nares; then, with the hypodermic syringe charged with a solution of tannic acid in water (of the strength of twenty grains to the fluid drachm), he pierces the polypus with the needle, and injects ten, fifteen, or twenty minims of solution, according to size of tumor. In a few days the polypus shrivels and dries up (tanned); it comes away without any trouble or pain, and looks like a clot of dried blood, the patients usually removing it by blowing the nose or by their fingers.

NEPHRITIS AFTER VARICELLA.—In a recent number of the *Berliner Klinische Wochenschrift*, Professor Henoch relates briefly four cases which have come under his notice, in which varicella was followed by nephritis. The patients were aged respectively ten, two, five, and four years. In all the eruption of varicella was generally abundant, and was accompanied by fever; and, at the end of a period varying from eight to fourteen days from the appearance of the eruption, there was œdema, with nephritic urine. In three of the cases, recovery took place in a few weeks, under the use of diaphoretics, with Bilin water or acetate of potash as a diuretic. One, a girl aged two years, who was the subject of congenital syphilis, died; and after death there were found œdema of the lungs and hypertrophy of the left ventricle. Dr. Henoch has not been able to find any record of varicellar nephritis in medical literature. He regards it as analogous to the nephritis which attends other infectious diseases, especially scarlatina.

Irritation of the Sexual Apparatus as an Etiological Factor in the Production of Nasal Disease.—The evil effects of undue excitation or disease of the generative apparatus upon the organs of sight and hearing are well known to specialists in these departments. In the April number of *The American Journal of the Medical Sciences*, Dr. John N. Mackenzie quotes authorities to prove the fact that immoderate indulgence in venery may lead to derangements of sight, was familiar to Aristotle, and that the fathers of medicine recognized some mysterious connection between the ear and the reproductive functions, and that the intimate relationship between the genital organs and those of the throat and neck attracted the special attention of the ancients. While historical facts point to the early recognition of the relationship between over-indulgence of the sexual powers and morbid conditions of the eye, ear, and throat, the special part which it plays in the production of nasal disease seems to have been heretofore overlooked. Dr. Mackenzie points out the intimate physiological relationship between certain portions of the reproductive system and the erectile nasal tissue. Clinical observation has shown him that: 1. In a fair proportion of women suffering from nasal affections, the disease is greatly aggravated during the menstrual epoch, or when under the influence of sexual excitement. 2. Excessive indulgence in venery seems to have a tendency to initiate inflammation of the nasal mucous membrane, or to aggravate existing disease of that structure. 3. The same is true in regard to the confirmed habit of masturbation. 4. The coexistence of uterine or ovarian disease exerts sometimes an important influence on the clinical history of nasal inflammation. These observations, therefore, encourage the belief, if they do not establish the fact, that the natural stimulation of the reproductive apparatus, as in coitus, menstruation, etc., when carried beyond its normal physiological bounds, or pathological states of the sexual apparatus, as in certain diseased conditions, or as the result of their over-stimulation from venereal excess, masturbation, etc., are often the predisposing, and occasionally the exciting causes of nasal congestion and inflammation. Whether this occurs through reflex action, pure and simple, or as the sequel of an excitation in which several or all of the erectile structures of the body participate, the starting-point of the nasal disease is, in all probability, the repeated stimulation and congestion of the turbinated erectile tissue of the nose. It is highly probable that this erectile area, so sensitive to reflex-producing impressions, is the correlative of similar vascular areas in the reproductive tract, and that the phenomena observed may accordingly be explained by the doctrine of reflex or correlated action.

Acute Myelitis in Syphilis.—Dr. Déjerine describes two cases of rapidly fatal acute myelitis in syphilitic subjects, remarkable for the early period in the course of the constitutional disease that the spinal lesion developed, as well as for the nature of the lesion. For although chronic disease of the spinal cord is no doubt often genetically allied to the syphilitic taint, and notably posterior spinal sclerosis, yet such lesions are late manifestations. But just as occasionally cerebral syphilis appears early, so the author contends may "spinal syphilis," and the cases are contributed as evidence in support of this. The first case occurred in a coachman, fifty-one years of age, who contracted syphilis thirteen months before, having had no other manifestations beyond the primary chancre, which ulcerated anew five months after its cicatrization. He had taken mercury for two months on each occasion. The nervous symptoms commenced with headache and irritability of the bladder; then weakness of the legs, lightning pains, and cramps; followed in a few days by complete paraplegia, the absolute loss of power occurring suddenly. He was admitted into La Charité under Professor Vulpian, when, in addition to the motor paralysis, there was found to be complete anæsthesia from the umbilicus downward, incontinence of urine, headache, and commencing sloughs over the buttocks. The course of the case was rapid, the gangrene involving also the heels and the abdominal walls (from the application of a poultice), and death occurred from pulmonary œdema twenty-eight days from the onset of the paralysis. The post-mortem examination revealed acute central myelitis, extending from the lower part of the cervical to the lower part of the lumbar region, with commencing ascending degeneration traceable to the medulla. Marked degenerative changes were present in the anterior nerve-roots and in the cutaneous nerves supplying the abdominal wall at the seat of the sloughs, but the posterior nerve-roots were intact. The second case was that of a man thirty-eight years of age, who a year previously had contracted syphilis, followed by secondary lesions, rapidly disappearing under specific treatment. A week before his admission into the Maison Municipale de Santé he had experienced pain in the spine, and paraplegia began on the day before his admission, with no pain or altered sensations in the legs, but a "girdle-pain" around the adomen and lower part of the chest. He was found to be completely paralyzed in the lower limbs, and anæsthetic to the level of the margin of the thorax; reflexes abolished; paralysis of sphincters; no interference with respiration, but inability to expectorate. On the sixth day a large superficial slough appeared on the sacrum, diarrhœa set in, and death occurred eight days after the onset of the paralysis. In this case the myelitic changes involved the gray matter of the lower half of the dorsal and upper half of the lumbar region, with degenerative changes in the corresponding anterior nerve-roots, but none in the posterior. Dr. Déjerine, who gives a minute histological description of the spinal cord in these cases, points out that they in no respect differ anatomically from acute central myelitis in general, but he does not believe that the absence of distinctive syphilitic lesions is sufficient to negative the idea that syphilis was the exciting cause of the myelitis. It often happens in syphilitic subjects that organs are the seat of a chronic interstitial inflammation which does not bear any specific anatomical characters, but which is indubitably due to the action of the syphilitic virus. As to acute inflammations, the broncho-pneumonia of measles cannot be distinguished anatomically from other forms of broncho-pneumonia; and we refer to measles as the cause, just as we refer to diphtheria as the cause of its paralytic sequelæ, because of the frequency with which the local affections follow upon the general. Applying this to syphilitic myelitis, the relative frequency of chronic myelitis in syphilis impels the acceptance that the former is often due to the latter, and, although acute myelitis is rare in syphilis, it is a relatively rare disease in itself; and when the myelitis supervenes, as in these two cases, so closely upon syphilitic infection, there is ground enough for accepting the existence of an acute syphilitic myelitis. At the same time Dr. Déjerine guards his argument by stating that, although syphilis may excite the spinal inflammation, there is no doubt a special disposition or proclivity to the local disease in the subjects who are attacked by it.—*The Lancet*, February 9, 1884.

Removal of Spleen from a Dog without Production of any Bad Symptoms.—Dr. Wm. H. Mercur, of Pittsburg, Pa., writes that, in 1875, Dr. W. J. Asdale, of that city, successfully removed the spleen from a one year old black poodle dog, weighing about fifteen pounds. The dog continued about the house as a pet. It showed no change in disposition, grew rapidly, until it weighed twenty-five or thirty pounds. Its skin was smooth and glossy. The dog recently died. On post-mortem the organs were perfectly normal, except for an enteritis. There was no vestige of a spleen. Dr. Mercur does not speak of any development of the bone medulla, the thyroid or the lymphatic glands.

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GOVERNMENT IN ITS RELATIONS TO QUARANTINE.

WE noticed last week a bill before the Public Health Committee of the House of Representatives, entitled "A Bill to Protect Public Health," and discussed that clause which provides a "United States Board of Health," to supersede the present National Board of Health. There is another feature of this bill which, we learn from the pamphlets before us, was discussed before the Public Health Committee, and which, from its importance, deserves the attention of all health authorities of States and municipalities of the seaboard which have quarantine duties to perform.

The bill provides that "such board shall have full power to make such regulations as may be necessary for the government of the quarantine service of the United States and the protection of the public health." Section 4 is as follows: "That the United States quarantine service shall hereafter be conducted and managed by the said Supervising Surgeon-General of the Marine Hospital Service, acting under the direction of the Secretary of the Treasury."

The objects sought to be accomplished by this measure, as appears in the discussion, are twofold, viz.: First, to prevent the enactment of a law that will revise the law of June 2, 1879, which expired by limitation in 1883; and second, the ultimate inauguration of a national quarantine system under the Surgeon-General of the Marine Hospital Service, which shall supersede the present State and municipal quarantines. Let us briefly examine both branches of this subject.

The law of 1879, entitled "An Act to prevent the Introduction of Contagious and Infectious Diseases into the United States," was passed during the extra session of Congress of that year, and in anticipation of the immediate outbreak of a yellow fever epidemic. It was the subject of much discussion by the ablest men of both Houses. The point of contention was its tendency to invade the rights of the States. The bill was finally perfected and made acceptable chiefly by General Garfield and Senator Harris. A clause limiting its operations to four years was added on its final passage. This law was a long step in advance. Congress recognized for the first time the duty of the general Government to aid the States in the suppression of wide-spread epidemics.

To the National Board of Health was assigned the duty of administering the law. The essential feature of the law was the duty of the National Board to co-operate with and aid State and local boards in the prevention of the introduction of epidemic diseases into the United States, and their spread from one State into another.

This act of the National Legislature created an era in the history of sanitary reform in this country, for it completed and perfected a national system of public health administration. We now had the local boards of health in every community protecting and promoting the health of the individual and the family; the State Board co-operating with the local board to suppress and prevent the spread of domestic pestilences; and finally, the National Board ready to bring the resources of the general Government to the aid of local and State boards in the suppression of the great foreign epidemics which so often invade our shores, and spread from State to State. The practical results which followed, during the four years of the existence of this law, were of the most valuable and lasting character. The great epidemic of yellow fever of 1879, which immediately followed the enactment of the law, was grappled with by the united forces of the local, State, and National Boards, and brought under control as it had never been before; the quarantine defences were everywhere strengthened; refuge stations for the cleansing and disinfection of infected vessels were established; the sanitary inspection of steamboats and railroad cars was enforced at infected places; rules for securing the best sanitary condition of ships were issued, and, as far as practicable, applied; information as to the health of the seaport towns of the world was weekly issued to all health officers and consuls; and, finally, an effective system of inspection and vaccination of immigrants.

We do not exceed the bounds of a rational estimate of our public health service in asserting that, during the existence of the law of June 2, 1879, it was the most complete and effective, in all its details, of any yet formulated. In allowing this law to lapse Congress made a great mistake, which it can only rectify by enacting a law containing similar powers and duties. A bill embodying the essential features of that law is now before the Public Health Committee, and is opposed by the promoters of the scheme of centralizing all quarantine powers in the Marine Hospital Service.

If now we turn to the bill before us which is designed to supersede the law just noticed, we find an entirely new phase of the question presented. Instead of aid and co-operation by the general Government with local and State authorities, all powers and duties are to be centralized in the Washington establishment. Though we are not prepared to assert that a national quarantine system might not be organized and administered by the general Government, which would be more effective than the present, we do say that the plan proposed in this bill will not accomplish that object. The board that is to be clothed with the "full power to make such regulations as may be necessary for the government of the quarantine service of the United States," is to be composed of officials who have no practical knowledge of quarantine rules and regulations. Quarantine belongs to the external sanitary police of seaport towns, and hence has always been under the jurisdiction of municipal or State authority.

Neither the Army, Navy, nor Marine Hospital Service have had any functions to perform, in connection with quarantine, except to obey the regulations of the particular seaport town which they happened to enter. We believe, therefore, that when the general Government determines to enter upon the management of the quarantines of the United States, it must appoint a board of control composed of representative men from the great commercial centres.

And we fail to see any special fitness in the agent selected in this bill to conduct the quarantine service of the United States. The Marine Hospital Service is devoted to the care of sailors in port, sick of other than contagious and infectious diseases. The very diseases among sailors, for which quarantine regulations are to be enforced, that Service has never taken care of, but has always turned the sick over to the local authorities and carefully abstained from personal contact. At the port of New York, sailors sick of small-pox, yellow fever, or cholera, are not sent to Marine Hospitals, but to the appropriate hospitals of the city and of the State quarantine. The ordinary operations of that service, therefore, do not qualify its officers for quarantine duties, and if "the United States Quarantine Service" is to be conducted by the Surgeon-General, another staff of officers must be created specially qualified for these new duties. If any such measure as this is to be inaugurated, we would suggest that the Surgeon-General of the Navy be selected to conduct the quarantine system, for his officers have at least had experience in ship sanitation, and the senior medical officers might be usefully detailed to such duties.

But all such immature schemes for securing the control of the quarantines of the country as this bill embodies, are unworthy the serious attention of Congress. They only illustrate the traditional ambition of the minor Bureaux at the Capital to increase their power, and thus magnify their importance.

ANÆSTHESIA BY THE RECTAL METHOD.

M. Daniel Mollière, in the *Lyon Médical*, has described a very novel method of administering ether, and claims for it advantages which, if sustained by further trials, will in a very literal sense revolutionize the usual procedure.

He writes that while showing a Danish physician, Dr. Axel Yversen, through the wards of the Hôtel-Dieu at Lyons, that gentleman asked how he administered ether, by inhalation or by the rectum! Further conversation elicited the fact that in Dr. Yversen's experience anæsthesia could be advantageously induced by giving the anæsthetic in the reverse of the ordinary way.

Next day Dr. Mollière began to experiment. A young woman, twenty years of age, was to be operated upon for a tumor of the parotid. The ether was injected into the rectum by means of a Richardson's atomizer. Absorption took place very slowly, but at the end of ten minutes the patient became incoherent, and could taste the ether in the mouth. A few drops were then placed near her nose, and upon inhaling them she fell at once into a profound sleep. The operation was then performed without any trouble. The patient had taken some soup just before the operation, and she vomited it upon recovering from the anæsthesia. Apart from this she felt no disturbance.

In a second case the ether was given in a different manner. An india-rubber tube of the size of the finger was introduced into the rectum, and connected with a flask of ether which was itself placed in a jar containing water heated to a temperature of 50° C. The ether entered the tube boiling. In five minutes the patient became incoherent; a few whiffs of ether then produced complete anæsthesia. The operation was for the removal of a tumor from the antrum of Highmore, and was much facilitated by the fact that no ether cone had to be kept over the face. The patient came out from the anæsthesia without any trouble and suffered no nausea.

In a third case, the administration succeeded equally well, the patient suffering no nausea.

The fourth patient was a robust man who had been a hard drinker. He was anæsthetized like the others, without any preliminary period of excitement except that the procedure "greatly excited his hilarity."

Two other operations were performed, in which the ether was administered in the same way and with the same success.

M. Mollière thinks that anæsthesia by the rectal method is destined to be of great service in many cases. It suppresses the period of excitation; it permits one to regulate the dosage very exactly; it reduces to a minimum the amount of ether needed; it allows the surgeon opportunity to operate upon the face; it is a more agreeable method to those patients to whom the odor of ether is nauseating and objectionable.

Some better method of injecting the ether may be devised, but at present M. Mollière thinks that the introduction of a flexible tube and connecting it with a flask of ether placed in hot water, at a temperature of 40° to 60° C., is the best method.

MEDICAL LEGISLATION IN CONGRESS.

House Bill 1340, "To Establish and Maintain a Bureau of Labor Statistics," which was considered in Committee of the Whole House on Saturday last, contains, among many things pertaining to labor statistics, the following provisions: "The number and ages of children, nature of their occupation, their attendance at school and church; the sanitary, educational, social, and religious condition of laborers; the average duration of life; accidents incident to employment; insanity; epidemics; factory, mill, mine, and dwelling inspections. The Commissioner of Labor Statistics shall obtain all possible information upon the various subjects specified from the different foreign nations, and shall have authority to issue circulars to United States Consuls asking them to obtain the information desired," etc.

Mr. Blount, of Georgia, opposed the bill, and referring to the provision of the bill with reference to strikes said: "We are probably to be treated to essays on strikes, their causes, effects, and remedies. Why do we want to pay persons for getting up essays on those subjects? We created a Board of Health and made an appropriation for it, and then we found that a large portion of the funds of that Board were utilized to pay friends of its

members for getting up essays on various diseases." . . . "If you find that they are not well (referring to laborers and their children), will you pass laws providing doctors for them?" etc.

Mr. Hopkins, of Pennsylvania, in answer said: "The gentleman says we inquire into their sanitary condition when we do not propose to remedy it. Congress has proposed to regulate the general health at times, and established a National Board of Health for that purpose," etc.

The discussion took a wide range, and several amendments were made, among them the following: After the word occupation (referring to children) insert the words, "the effect of the different kinds of labor on their growth, development, and health."

After the word classes insert the words, "the condition of tenement-houses for operatives and the rental thereof."

Much opposition to the passage of the bill was made by Mr. Bland, Bayne, Aiken, and others, but on a call of ayes and nays the bill passed by a vote of 183 ayes to 19 nays; 120 not voting.

A resolution authorizing the House Public Health Committee to "inquire into the extent and character of the adulteration of food and drugs imported into the United States, or exported therefrom," and appropriating $2,000 to defray the expense of such inquiry, was presented by the chairman of the committee (Mr. Beach, of New York), who moved to suspend the rules and pass the resolution. Mr. Mills, of Texas, demanded a second on the motion to suspend the rules, whereupon Mr. Beach asked unanimous consent that a second be considered ordered. To this Mr. Mills objected, and tellers were appointed, who reported 93 ayes and 51 nays. The rules being suspended, debate followed, and Mr. Beach made a speech in favor of the resolution, as did also Mr. McComas, of Maryland. The resolution was opposed by Mr. Mills, of Texas, who said he was "opposed to this constant interference on the part of the law-making power of the Government with the habits, food, and customs of the people at home. There is too much sumptuary legislation," etc. He continued, "Suppose some butter is presented for examination before this committee, and they have an expert to pass upon it; how can he know what is coming in at New York on that day or the next day, or what is going out? The proper plan would be manifestly not to deputize the committee, but to authorize the Secretary of the Treasury to take such steps as in his wisdom may be necessary to have an examination made through the Custom House, and make his annual report to Congress. Therefore there is no necessity for the passage of this resolution."

No other members participated in the debate, and the motion to suspend the rules and pass the resolution was not agreed to—ayes, 64; nays, 80. Mr. Beach then called for the ayes and nays, but only fourteen voting in the affirmative, the ayes and nays were not ordered, so the resolution was defeated.

Mr. Blount, of Georgia, introduced Bill No. 6672, to reduce the internal revenue tax on brandy distilled exclusively from apples, peaches, or grapes grown in the United States, to ten cents per gallon. Referred to Committee on Ways and Means and ordered printed.

Mr. Parker, of New York, introduced Bill No. 6708, to tax the manufacture and sale of oleomargarine. Referred to same committee and ordered printed. Mr. Parker also introduced Bill No. 6709, to regulate the exportation of articles made in imitation of butter and cheese. Referred to Committee on Commerce.

Mr. Scales, of North Carolina, under suspension of the rules, moved to pass the joint resolution authorizing the public printer, whenever he receives "a sufficient number of orders for copies of the 'Report of the Tenth Census,' or 'Compendium of the Tenth Census,' or for the 'Medical and Surgical History of the Rebellion,' or for the 'Rebellion Record,' accompanied in each case by the cost price thereof, with ten per cent. additional, to warrant, in his opinion, the expense of putting the plates to press, he shall cause an edition or editions thereof to be printed; provided the number of copies thus at any time printed shall not exceed the number ordered and paid for in advance of publication." This resolution was agreed to.

Mr. McPherson, of New Jersey, presented "a petition of many citizens of New Jersey, praying that all qualified physicians be made equal before the law in the Government service of the United States," having reference, he explained, "to all grades of physicians and all classes, as allopathic, homœopathic, etc.," and moved its reference to the Committee on Military Affairs. So referred.

Mr. Cameron, of Wisconsin, presented "a petition, numerously signed by residents of Wisconsin, praying for the passage of Senate bill 1223." The bill refers to the employment of different schools of medicine in the Government service, and the petitioners ask that their petition be referred to the Committee on Civil Service and Retrenchment.

The President of the Senate said similar petitions had been referred to the Committee on Military Affairs, under the impression that most of those surgeons are employed in the army. The petition was then referred to the Military Affairs Committee, but afterward changed to Committee on Civil Service and Retrenchment.

Mr. Hawley, of Connecticut, presented the petition of ex-Governor Wm. T. Minor and one hundred and seventeen other citizens of Connecticut, to the same effect, and moved its reference to the Committee on Civil Service and Retrenchment. Motion agreed to.

Mr. Cullom, of Illinois, presented sundry petitions of citizens of Chicago and other cities in Illinois, Iowa, and Minnesota, praying Congress that homœopathic physicians be given the same opportunities as allopathic physicians to enter Government service. Referred to Committee on Civil Service and Retrenchment.

Mr. Harrison, of Indiana, presented a petition from Dr. T. C. Hunter and sixteen other citizens of Indiana, and four other petitions of citizens of Indiana, praying for the passage of bill 1223, to secure to the medical profession equal rights in the service of the United States. Referred to same committee.

Mr. Cockrell, of Missouri, presented a similar petition to above from citizens of Missouri, also memorial of the faculty and students of the Homœopathic Medical College of Missouri, protesting against the discrimination that is made in favor of one class of physicians alone in Government employment in all the offices except the

Pension Office, and recommending the passage of Senate bill 1223, and asking it be referred to the Committee on Civil Service. So referred.

All the above petitions relative to the homœopaths were introduced in the Senate on the 21st instant, showing a determined effort to secure legislation in their behalf.

Mr. Palmer, of Michigan, presented resolutions of the State Board of Health of Michigan in favor of legislation for the prevention of the introduction of infectious diseases into the United States. Referred to the Committee on Epidemic Diseases.

HOW INFECTION IS IMPORTED.

Of the many unpleasant aspects of the defective medical service on ocean steamships, to which attention has been directed in recent issues of The Record, that of greatest moment to the public at large is the facility afforded for the introduction of infectious disease.

A competent medical attendance may become necessary to all who face the vicissitudes of ocean transit, and is eminently desirable for the physical well-being of immigrants to this country, but of even wider importance as affecting every member of the community is a reliable sanitary administration on ship-board, for without it, and without the co-operation of the ship-surgeon, our quarantine arrangements offer no security against the importation of epidemic disease.

As the constant recipient of immigration from almost every part of the world, and from peoples among whom small-pox, scarlet fever, typhus, and other infectious fevers are more or less endemic, the United States is singularly situated, and has need of especial caution in this regard. Absolute protection can only be secured by the rigid enforcement of quarantine proper, that is, the detention at a safe distance of every foreign vessel during the longest incubative period since possible infection.

This, however, is attended with such heavy commercial loss, and inconvenience to travellers, that nothing short of urgent emergency would justify its adoption. Nor does it seem necessary at present, since it would appear that the first spread of infection is almost invariably a consequence of defective structural arrangements and neglected sanitary precaution on ship-board, and that the usual method of its dissemination here is by persons who have themselves contracted the disease during the voyage hither, but in whom symptoms have not appeared until after the quarantine examination had been passed.

In another column we publish a letter from Dr. J. A. Irwin, in which this evil is fully elaborated, and illustrated by an example which will astonish many of our readers.

On "the steamer belonging to one of the reputedly safest trans-Atlantic lines," which recently carried small-pox to this port on two successive voyages, the hospitals are so located that isolation is absolutely impossible, since the only exit for infectious germs is through the inhabited part of the vessel. To deal with such cases is one of the objects of the bill now before Congress, but we fear that no legislation will prove effective in this regard which does not hold the medical officer directly responsible for sanitation on ship-board, and render him so independent of the owners of the vessel that he will be enabled to co-operate with our quarantine authorities without first consulting their interests, or else forfeiting his position.

News of the Week.

The Outcome of Ethical Intolerance.—Dr. Allan McLane Hamilton, of this city, sends us the following remarkable communication:

"At the suggestion of several medical friends I send you for publication a fact which may have some interest for those who are concerned about the preservation of the Code of Ethics. Some weeks ago I was the recipient of a letter from the Secretary of the Section of Practical Medicine of the American Medical Association, inviting me to read a paper at the coming meeting, and at the same time to take part in the discussion of a paper by Dr. Pepper. I accepted, and heard no more of the matter until this morning, when I learned from Dr. Shoemaker, the chairman of the section, that the committee had refused to allow my name to be used in the discussion because I favored the new code."

Medical Paris.—The session of the Académie de Médecine, on April 8th, was chiefly devoted to a lively discussion upon M. Luys' proposition regarding the mobility of the brain in different attitudes of the body. M. Béclard opposed the view of Luys, and stated that it was not only not proven but impossible. M. Luys reiterated his opinion, which was in part sustained by M. Guérin. M. Colin said that at the previous meeting he had opposed Luys' view, but now he would defend it, having observed the phenomenon in a living animal. On the whole the discussion was rather in M. Luys' favor. M. Mahuet, of Caen, read a paper upon the "Danger of Employing Purgatives in the Third Stage of Typhoid Fever." The author thought that purgatives were useful and necessary at the beginning of the fever, but absolutely dangerous later on.

Medical Vienna.—At the meeting of the Royal Society of Physicians, March 28th, Dr. V. Hacker presented a woman upon whom Billroth had successfully operated for carcinoma of the pylorus on February 26th. He also related the history of a case of a large lympho-sarcoma of the spleen, in a woman aged forty-three, upon whom he had successfully operated, the spleen being entirely removed. This was the thirty-sixth case of extirpation of the spleen. Prof. Adamkiewicz read an elaborate paper upon "Compression of the Brain." At the annual meeting of the Vienna Medical Doctoren-Kollegium, Prof. Schmerling was elected president.

Delegates to the American Medical Association.—Delegates to the American Medical Association may obtain excursion tickets from New York to Washington, from May 5th to May 8th, and returning until May 12th, on application to Dr. J. G. Adams, Park Avenue Hotel. Price of tickets, $9.80. Trains leave Desbrosses and Cortlandt Street Ferries at 1 P.M., 7 P.M., and 12 NOON. Most of the roads to and from Washington agree to give special rates and round trip tickets on presentation of certificates of delegateship.

The Sims Memorial List, which is unusually long, is unavoidably crowded out of the present issue.

EIGHTY-SIXTH ANNUAL SESSION OF THE MEDICAL AND CHIRURGICAL FACULTY OF MARYLAND.

Held at Baltimore, Tuesday, Wednesday, Thursday, and Friday, April 22, 23, 24, 25, 1884.

(Specially reported for THE MEDICAL RECORD.)

FIRST DAY, TUESDAY, APRIL 22D.

THE Medical and Chirurgical Faculty of the State of Maryland met in annual session, in Hopkins Hall, Johns Hopkins' University, Baltimore, Tuesday, April 22d, at 12 M. A large number of members was present from the city and counties, and also delegates from the Baltimore Academy of Medicine, Baltimore Medical Association, Clinical Society of Maryland, Medical and Surgical Society of Baltimore, and the Allegany County and Cecil County Medical Societies.

The meeting was called to order by the President, DR. RICHARD MCSHERRY, who delivered his address.

ABSTRACT OF THE PRESIDENT'S ADDRESS.

He would not attempt to review the progress of medicine since the organization of this Faculty, though it had been very remarkable. We have seen many changes and not a few improvements. We are bound to watch the former and use the latter. The ideal physician should take cognizance of everything; winnow the wheat from the chaff, and add to his stock, already very varied, all that modern science may offer him for the benefit of his fellow-man. He must get what he can from the Kochs, the Pasteurs, the Listers of the day, without giving up what has come down to us from the days of Hippocrates, or without depreciating his own well-earned experience.

The changes in medicine are often very perplexing, so much so that some of its ministers themselves become very skeptical. One of the most brilliant members of the profession is reputed to have said that if the whole materia medica in the world were cast into the sea, it would be all the better for mankind and all the worse for the fishes. But Dr. Holmes put in the qualifying clause, "as now used"—which is equivalent to saying, as now abused or misused; and when any physician looks over the cure-alls advertised in the daily papers, and sees how many people swallow drugs, good in themselves, it may be, but with all chances of misapplication, he will not dispute the corrected dictum of Boston's favorite son.

It is scarcely a matter of surprise, however, that people swallow all kinds of nostrums so readily when they see them endorsed not only by ignorant dupes, but also by ministers of the Gospel, who ought to be very chary of using their influence where it may do so much injury. I have been informed by a well-known minister that compounders of quack medicines frequently offer a bonus or percentage to ministers for the use of their names. Our own profession, too, is sometimes offered bribes, the ingenuous parties making such offers being unaware that their acceptance would ruin a physician's standing with his professional brethren.

ETHICS.

We have a Code of Ethics not appreciated by the public, but which is necessary to our own peace and self-respect. The regular profession, while always ready to add to its resources, cannot consistently make any compromises with irregular practice in any of its forms. We believe in our system, which though not perfect is the best now known, and we will therefore adhere to it, leaving all devious forms of practice to their deluded partisans. This Faculty happily has frankly expressed its determination to adhere to the American Code, which is in accord with the best tone of the profession all over the world.

POLITICS AND MEDICINE.

It scarcely becomes physicians, as such, to become active politicians, but in many things we should call upon legislators to hear and heed us. In everything pertaining to public matter; in whatever bears upon purity of air, water, food, or medicines; in school hygiene, while we see so many children injured mentally and physically by unwise courses, miscalled education; in all matters pertaining to medical jurisprudence; in the drainage and sewerage of cities, and in some respects in matters of public morals, physicians should properly take an active part, which should have a potent influence. There is a fell destroyer abroad which reaches from dens of infamy but too often into the purest families; medical control might be used to save the virtuous from such detestable contamination. Furthermore, physicians in public and private should be among the foremost advocates of the superlative virtue of temperance—"temperance in all things."

ACCOMMODATIONS.

Our Faculty has now a respectable library of over four thousand volumes, which is constantly growing. We have an immense number of medical journals, published at home and abroad, for the greater part of which we are largely indebted to the generosity of the proprietors of the *Maryland Medical Journal*. We want increased accommodations; a good house, or at least a suite of rooms, that is, a large public hall which shall contain the library, with room for public sessions, a social hall, a committee room, and proper appurtenances. The Executive Committee has been endeavoring to obtain such accommodations, but so far without success.

TREASURER'S REPORT.

The Treasurer, DR. W. F. A. KEMP, presented his report. Total receipts for the year $2,318.97; disbursements, $1,789.98, leaving a balance in the treasury of $528.99. Total assets, $9,792.99, viz.: library, valued at $9,000 (insured for $7,000); amount to credit of building fund, $500; cash on hand, $28.99; dues from members in arrears, $264. Liabilities, $247.55. Loss in membership, two died, seven resigned; gain, seven new members.

EXECUTIVE COMMITTEE'S REPORT.

The report was read by DR. P. C. WILLIAMS, Chairman. It announced that Professor Wm. Pepper would deliver the annual oration, on "Some Practical Views on Dietetics in Disease," to-morrow at one o'clock. That earnest efforts had been made to secure better quarters for the accommodation of the Faculty, but without success. That accommodations had been provided for the increase of the library for the next two or three years, etc.

LIBRARY REPORT.

Presented by DR. B. BERNARD BROWNE, Chairman. The report sketched the rapid growth of the Library during the last ten years. The total amount at the disposal of the Committee during the year, from appropriation, donations, fines, and sales, was $506.23, of which a balance of $2.07 remains on hand. Total number of volumes in Library by actual count, 4,016, of which 277 are duplicates. Number added during year, 673. The most noted additions were complete sets of the new Sydenham Society's publications, and London Obstetric Society's Transactions. Four elegant new dictionaries were presented by Dr. John Morris. Among the most valuable additions is the Glasgow diploma of the first President of the Faculty, Dr. Upton Scot, deposited by his great-grandson, Dr. C. Birnie. One hundred and nineteen medical journals are regularly received. It was announced that members can now obtain books from the Surgeon-General's Library, Washington, by making requisition through the Librarian of the Faculty.

EXAMINING BOARD.

Dr. S. C. Chew, Chairman. The following were recommended for membership: Drs. J. B. Browner, Emmitsburg; F. Donaldson, Jr., S. J. Fort, Baltimore; G. H. Hocking, Mt. Savage; W. S. Maxwell, Still Pond; Arthur Williams, Elkridge Landing.

PUBLICATION COMMITTEE.

DR. G. LANE TANYHILL, Chairman, reported that 500 copies of the Transactions for 1883, and 300 copies each of the President's and annual address had been distributed. Total cost of above publications, $430.30. It had also, in accordance with the instructions of the Faculty, had printed 1,000 copies of the "Medical Annals of Baltimore," an octavo of 275 pages by Dr. J. R. Quinan, of Baltimore. Cost of this work, including advertisement, $417.55.

THE COMMITTEE ON MEMOIRS.

DR. EUGENE F. CORDELL, Chairman, gave sketches of the lives of Drs. Judson Gilman, late Treasurer, and E. Gover Cox, both of Baltimore, deceased during the year.

The resignation of Dr. F. D. Gavin was received and accepted.

SECTION ON SURGERY.

The Report on Surgery was by DR. J. EDWIN MICHAEL, Chairman. Dr. Michael said the principles of antiseptic surgery are now so thoroughly established that the question of to-day is simply,

WHAT ANTISEPTIC SHALL BE PREFERRED.

The elaborate apparatus of Lister would be inapplicable in country practice or in places like the Soudan. Lister himself has shown that the essentials might be both portable and cheap. He admits that the spray is not necessary and recommends irrigation or sponging with sublimate solution (1 to 1,000). Efficient antiseptics are dangerous and require careful watching.

BREAST CANCER.

The tendency to operate is on the increase. Axillary involvement is no contra-indication. Repeated operations are to be commended in cases of relapse. But Gussenbauer's extreme views—to operate when the supra-clavicular glands are involved—are not to be accepted. Billroth keeps hopeless cases asleep under morphia.

WIRING FRACTURED PATELLA.

This operation, introduced by Lister, will no doubt be valuable in old ununited cases with wide separation and loss of function, in compound cases, also, perhaps, in cases where there is extensive comminution and great distention of the joint. Recent simple cases will continue to be treated by splints and other measures free from danger and accompanied with sufficiently good results.

Sir H. Thompson's operation of digital exploration was next described; this surgeon has had thirty-two such cases with satisfactory results.

In deep urethral strictures external perineal urethrotomy is considered by Dr. Michael as much safer than any of the internal divulsing or cutting operations.

SECTION ON PRACTICE.

The Chairman was not prepared to report, but a supplementary report was made by DR. ROBERT W. JOHNSON on

CRYPTORCHIDISM.

The author had collected from various sources 89 cases, 66 of which were over fourteen years of age; 9 had no testicles on post-mortem; in 18 both testicles are stated to have been in the inguinal canal; in 8 one testicle was in the canal, the other was not discoverable; in 15 the semen was examined microscopically, in 3 of which spermatozoa were discovered; 10 are stated to have had children. Heredity was observed in one, where a monorchid brought forth a cryptorchid child. The above figures show that whilst human cryptorchids are not necessarily sterile, the great majority of them are, and the question must be determined in each case by an examination of the semen.

Dr. Johnson then exhibited an illustrative case of the above condition. The patient is a robust sailor, white, thirty-three years of age, always very lascivious, and twice married, with one child by his first wife. Four years ago had gonorrhœa, with apparent right orchitis. Three years ago, after exertion, felt something give way on the right side, after which he put on a double truss. Signs of virility marked, except that scrotum is smaller than usual, on left side empty, and on the right contains only a bag projecting half-way into it from the groin; this bag disappears when he lies down, and nothing like testicles can be felt on either side. When he stands and coughs occasionally, the testicles descend into the scrotum; they appear slightly smaller than natural. The semen is thinner and more translucent than normal, and is devoid of spermatozoa.

SECTION ON OBSTETRICS AND GYNECOLOGY.

The Chairman of this Section was not ready to report, but DR. W. A. B. SELLMAN presented a supplementary report on

THE EFFICACY OF IODOFORM IN PREVENTING UTERINE COLIC AND PELVIC INFLAMMATION FOLLOWING THE INTRA-UTERINE APPLICATION OF NITRATE OF SILVER.

Dr. Sellman stated that he had found the latter agent (gr. lxxx. to the ounce) the most effective of any in intra-uterine inflammation, but he had had some troublesome cases of colic, and even peritonitis and ovaritis, after its use. He had found, however, that the immediate application of iodoform prevented this unpleasant sequel. He generally applies it within the cervix by means of cotton and an applicator, but external to the os if the canal be too much contracted by the first agent to admit of the second introduction of the applicator.

SECOND DAY, WEDNESDAY, APRIL 23D.

DR. F. W. PATTERSON offered the resignation of his membership, which was accepted.

Drs. J. G. Jay and A. A. Hanna, of Baltimore, and J. W. Williams, of Lonaconing, were recommended for membership by the Examining Board.

SECTION ON PRACTICE.

A paper was presented by Dr. A. B. Arnold, chairman. He spoke of the recent development of

A NEW DEPARTMENT OF MEDICINE, PHARMACOLOGY,

and of the services it had rendered and was capable of rendering. Pathology could never serve as the basis of therapeutics, and such a belief is utopian. The morbid changes of tissues and organs could never be completely understood; art could not be separated in medicine from science, and personal qualities are essential to successful therapeutics. Roser and Wunderlich had been champions of the high science idea, but the latter had found it necessary to make concessions in favor of rational empiricism when he became a clinical teacher. The English have always taken experience as their guide, and it is claimed that they have been successful practitioners in consequence. Brunonism obtained no foothold among them. The fallacies to which false experience, or experience misinterpreted, may give rise, were illustrated by the history of venesection, while physiology, or rather physiological toxicology, must be relied on to furnish an exact scientific basis for our therapeutics. Clinical medicine must supply the final test.

The paper concluded with a reference to the neurotic theory of fever and the use of antipyretics.

THE ANNUAL ORATION

was delivered by PROF. WILLIAM PEPPER, of Philadelphia, on

SOME PRACTICAL VIEWS ON DIETETICS IN DISEASE, OR THE RELATION OF DIETETIC ERRORS TO DISEASE.

Successful treatment depended chiefly or exclusively on proper diet and regimen. The scientific adaptation of dietetics to special morbid states constituted the greatest triumph of the medicine of the near future. Far too much importance was ascribed to climate and overwork, too little to diet and personal hygiene. If the English who go to India and Australia were to adopt suitable diet and regimen, the characteristic health and energy of the race would be preserved there. The typical characteristics of the American (sallow complexion, tall, thin figure, ceaseless energy and activity, dyspeptic tendency) were due, not to climate, but to temporary influences, as malaria, damp soil, bad whiskey, tobacco, strong tea and coffee, the constant resort to the frying-pan, the soda baking-powder, the patent purgative pill, etc.

There was no more favorable climate than ours on earth. Neurasthenia in his experience was a rare condition. With the correction of the evils referred to there was gradually being developed a new type of American, having all the best qualities of his foreign ancestry. This result may be promoted by the introduction of the study of hygiene and physiology in the schools.

The enduring capacity of a man is measured like the chain, by his weakest link. Patience and self-restraint enable him to spare the weak point. In considering the results of indigestion we confine our ideas too much to the stomach and intestines, whereas it relates to all the processes which take place from the reception of the food to its complete digestion and assimilation.

Lithæmia or suppressed gout, a very common affection in this country, but not always associated with arthritic trouble, was one form of indigestion.

The author referred to the hot-water mania and to hydropathy, and said that many popular mineral waters owe their virtues purely to the water they contain, the mineral ingredients being inert. Water may be of use by taking the place of objectionable liquids. He illustrated the lengths to which patients will go in seeking relief from real or imaginary ills, by reference to a patient of his, who sought relief in a German schlotter cure, in which she was subjected to a dry diet alternating with stimulants, the result being an artificial fever, great constipation, and loss of flesh. Unquestionable benefit accrues in some diseases from this method. A lady suffered with extreme dyspnœa and fatty degeneration of the heart was diagnosticated; her weight was greatly increased. Regulation of diet diminished her size and effected a cure. A case of periodical albuminuria occurring on exertion but disappearing during rest, was related, in which good diet and regimen produced a cure; also a case of eczema cured by the same means.

The body weight diminished at various rates. Too great a diminution might be harmful, as in a case related, where a lady had an ulcerated tongue, which was supposed by her friends to be of a malignant nature and was attributed to the dieting. It disappeared, however, by improving the diet. Bismarck's trouble was lithæmia, and was relieved by regulation of diet.

A VOTE OF THANKS

was passed to Dr. Pepper, whose address was listened to by a crowded audience, and he was nominated for honorary membership.

DR. R. S. SEISS presented his credentials as a delegate from the Pennsylvania Medical Society.

SECTION ON OBSTETRICS AND GYNECOLOGY.

DR. P. C. WILLIAMS presented a report, as chairman, on

THE USE OF ERGOT IN OBSTETRICS.

He took grounds in favor of this remedy and in opposition to Engelmann and A. H. Smith, who denounce its use under all circumstances in obstetric practice, on the ground that serious accidents, rupture of uterus, lacerations, etc., result from it. With regard to the two cases of rupture reported by Engelmann in the *Medical News*, and ascribed by him to ergot, he rejected the first as not being described with sufficient care. The second case was a shoulder presentation without medical assistance for three days, then freely dosed with ergot and version unsuccessfully attempted. Dr. Engelmann first saw the patient on the fourth day after rupture had occurred. The child was removed by disarticulation, and the woman died in two hours. Disaster in such case was inevitable.

The speaker had used ergot in most of his labor cases since 1874, with the view of preventing post-partum hemorrhage, and has not had a single case of the latter. Of two hundred and ten of these cases he has records. In seventy of these forceps were used, and in nearly all chloroform. Two hundred and fifteen children were born, eight of whom died, one in twenty-seven; five of the mothers died, one in forty-two.

He believed ergot had nothing to do with deaths in any of these cases. Ergot should never be given in shoulder presentations, nor in any malposition unless it is to be immediately followed by chloroform and active intervention. It should never be given in any stage where the head was too large, without immediate use of forceps. It should never be given in either stage unless the soft parts were dilated or dilatable, but might be given without hesitation if this condition be present and there be no disproportionate or mal-position, and especially if the pains are feeble and ineffectual. Whenever the head does not descend, or fails to recede in the intervals, it is absolutely necessary to apply forceps and terminate labor.

Dr. Williams gives chloroform in nearly all his labors, believing that thereby he shortens their duration and prevents exhaustion, and he precedes by ergot whenever the latter is not contra-indicated, thus maintaining pains and obviating risks of hemorrhage.

SECTION ON MATERIA MEDICA AND CHEMISTRY.

The report was presented by DR. A. ATKINSON, who described several preparations lately introduced to the profession, viz., salicylate of iron, hydriodic acid in the form of syrup (syrup of the bromide of nickel), saccharated oil of saw-palmetto, coumarin, lozenges of chlorodyne, and pelletrine.

Among novelties suggested were citric acid in drachm doses in metrorrhagia, which the author declared to be followed by wonderfully good results; the combination of tincture of digitalis with chloral hydrate, one grain to one minim, to prevent the heart depression sometimes consequent on the use of the latter alone, and boracic or boric acid in erysipelas and the local inflammations.

SECTION ON SANITARY SCIENCE.

A report was presented by the Chairman, DR. C. W. CHANCELLOR, the title of which was

THE SANITARY NEEDS OF THE POOR.

In the absence of the author it was read by title and referred to the Publication Committee.

A supplementary report was read by DR. JOHN MORRIS, upon

SOME SANITARY STATISTICS OF BALTIMORE IN THE PAST.

Dr. Morris recalled some humorous details of his subject, and pointed out the remarkable changes in the nomenclature of diseases since the beginning of the century. An amusing instance of ignorance was a death certificate of hysteritis in a male. The statistics indicate gradual but marked improvement.

(To be continued.)

Reports of Societies.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, March 26, 1884.

GEORGE F. SHRADY, M.D., PRESIDENT, IN THE CHAIR.

(Continued from p. 443.)

DR. JANEWAY presented a specimen of

POST-PARTUM ACUTE DIPHTHERITIC DYSENTERY INVOLVING THE ENTIRE LARGE INTESTINE.

It was accompanied by the following clinical history:

Dora S——, twenty-three years of age, ma ried, domestic, admitted to Ward 20, March 20, 1884. Patient was delivered of her first child at the Emergency Hospital on March 18th, at six P.M. The labor was in every way normal, and lasted only about six hours. The day following her delivery her temperature was 99°, and remained at that point until the afternoon of the second day when it suddenly went up to 104⅘°. She was then transferred to Ward 20. At this time her uterus (which had contracted down well after her delivery) had increased to a large size, extended above the umbilicus, was flabby and tender to pressure. There was considerable discharge from the vagina, which was somewhat colored, and which was increased upon pressure upon the uterus. There was no perceptible odor. She was given an intra-uterine douche of 1 to 2,000 hydrarg. bichlor. Her temperature gradually fell after this, until the following morning (21st inst.) it was 99⅘°. In the afternoon it arose again rapidly and at 7 P.M. was 104°. She was given another intra-uterine douche, and temperature fell until at 3 A.M. (March 22d) it was 104⅘°. At 2 P.M. temperature 103⅘°. Was given an intra-uterine douche again. At 11 P.M. temperature 101°. During the night of 22d and 23d she had three large diarrhœal movements.

March 23d.—This morning patient is in almost a state of collapse. Hands and feet cold, skin clammy, pulse imperceptible. Had three large diarrhœal movements during the morning. Was ordered opium suppositories and these checked diarrhœa. Discharge from vagina still considerable. Examination of urine: Cloudy, acid, 1.024; small amount of albumen; large number of hyaline and granular casts. At 6.30 temperature 103⅘°; intra-uterine douche; 8 P.M., 104⅕°; 12 P.M., 104⅘°; coil applied; 3 A.M., 103⅘°; 10 A.M., 102¾°; coil removed.

March 24th.—Has had two large diarrhœal movements. Has remained in condition of semi-collapse since yesterday morning, when her diarrhœa commenced. At 1 P.M. she died, five days and eighteen hours after delivery. Treatment: quiniæ, gr. 30, each day; last two days, ext. ergot fl. 3 ss., q. 3 h.; morphia; whiskey.

An interesting point in the clinical history was the fact that although the temperature was high, and the heart beat with a fair amount of force, the pulse at the wrist was imperceptible.

A point of pathological interest was the fact that the diphtheritic lesions were much more marked in the large intestine than in either the vagina or uterus. This fact also showed that the intra-uterine douche will not reach the whole of these cases. Again it may seem that the case is one of diarrhœa, when in reality it may be one of dysentery. From the appearance of the discharges in this case, containing as they did merely a small amount of shreddy matter, easily enough accounted for by the existence of lochial discharge, there was nothing to indicate the presence of dysentery.

DR. J. LEWIS SMITH asked Dr. Janeway if he believed the diphtheritic colitis to be due to the same cause which produces diphtheritic pharyngitis.

DR. JANEWAY thought it difficult to say; but probably it was different. It seemed to him that perhaps the uterine, vaginal, and intestinal changes appeared at about the same time, and the lesion was quite recent, because the epithelial cells still showed their nuclei when the autopsy was made. Probably the process had begun in the large intestine when the patient had the diarrhœa, and the specimen was especially interesting because it showed how varied the lesions may be, and no one would have suspected such severe dysentery from the clinical symptoms. There was no tenesmus; the patient merely having an urgent desire to have an evacuation from the bowels, followed by a large discharge. The history was such as would lead one to suppose that the symptoms were due to ergot; especially the sudden desire and a large stool. The lochia were not fetid.

DR. J. L. SMITH remarked that it was well known that women when exposed to diphtheritic poison in childbirth die without the occurrence of any inflammation of the fauces, but with diphtheritic inflammation of the uterus and perhaps the vagina.

The specimen reminded him of a case which he saw a few years ago, and in which there was undoubted diphtheritic colitis. Diphtheria had occurred in one of the children of a physician, who, soon afterward, was taken sick with obscure symptoms, and it was supposed he had typhoid fever. But after a protracted sickness he passed a cast, nearly a foot long, of the large intestine. The patient never fully recovered; there was great narrowing of the colon, which finally gave rise to a fatal termination. In that case it was probably due to the same poison which produced the diphtheritic pharyngitis in the child.

DR. JANEWAY said his patient had not been exposed to diphtheria at all.

DR. FERGUSON asked Dr. Janeway if he thought the reduction of temperature was due to the intra-uterine douches, or was it the ordinary periodical reduction?

DR. JANEWAY replied that the temperature fell after the first two douches, and after that it continued elevated. It would be difficult to say exactly what the reduction was due to, as very many of these cases have a periodical rise and fall of temperature.

DEATH FROM PERITONITIS FOLLOWING PERFORATION OF THE APPENDIX VERMIFORMIS.

DR. J. LEWIS SMITH presented a specimen with the following history. On March 16th he was called to a woman of about twenty-five years, fleshy, and of robust appearance, whose history was as follows: Her parents were dead, and by strict economy, and hard work as a seamstress, she had supported herself and the younger children. Her conduct and character were such as to win the praise and sympathy of the neighbors. During the two or three months preceding the present attack she had complained of a dull aching pain low down in the abdomen on the right side and in the pelvis. At the time of Dr. Smith's visit the pain had suddenly become more severe, and it extended over the entire abdomen, but the tenderness, though general over the abdominal cavity, was most severe in its lower part, especially on the right side in the iliac region. She said that the pain extended even to the right shoulder. With these grave symptoms Dr. Smith was surprised to find the temperature taken under the tongue normal, and the pulse not accelerated. The respiration was also normal. There was no appreciable meteorism or distention of the abdomen, but it was unusually hard on pressure. She had no vomiting and no diarrhœa. A large poultice of flaxseed and mustard was applied over the abdomen, and one-fourth grain of sulphate of morphia was given every three hours. On the following day the symptoms were about the same. The temperature taken under the tongue was still not elevated.

On the third day she stated that she had vomited occasionally; the temperature was elevated, but not more than two or two and a half degrees, and subsequently it did not rise above 102.5°. The pulse was about 100. Her monthly flow had now commenced, which was about one week before the usual time. Its early appearance was attributed to the poulticing. She stated that similar

pains had always accompanied her catamenia, though perhaps not so severe.

Her features now began to show more serious sickness than at first, and the doctor became anxious as to the result, so that she was visited twice daily, though he was not apprehensive of her immediate death. It seemed to him that she had inflammation in the region of the right ovary with some surrounding peritonitis, and he thought of perforation of the appendix vermiformis, but was not prepared to accept the diagnosis of a general peritonitis from the history of the case and the symptoms. The flow of blood continued, and the patient remained about the same, with occasional vomiting and the aspect of more serious sickness than at first, till the afternoon of the sixth day, when she suddenly went into collapse, and died. The physician who saw her at this time, in the absence of Dr. Smith, believed that she had sustained an internal rupture of some kind.

Autopsy.—Twenty-three hours after death, the body having been surrounded with ice; no appreciable meteorism, or distention of abdomen; abdominal walls thick from fat; on opening the abdominal cavity very fœtid pus escaped, filling the room with an offensive odor; general recent peritonitis with agglutination of the intestines; peritoneum of a pink color and readily stripped from the intestines.

The inflammatory lesions were most marked in the right iliac region, and in this locality, extending down into the pelvis and reaching the ovary, the walls of the abscess could be made out, especially upon the parietal surface of the abdomen. The appendix vermiformis, curled around so as to lie against the cœcum, was of about the size of the little finger, of a slate color, as were also the adjacent surfaces, probably from long contact with pus, and firm or solid to the feel from infiltration. Near its middle was a perforation large enough for a slate-pencil to pass. On account of the offensive odor of the pus, he did not search for the foreign body. The uterus was not opened, but it was normal in size and appearance.

It seems evident, from the lesions and history, that some foreign body had lodged in the appendix vermiformis, probably three, perhaps four months before death, and that when this body by ulceration had reached the peritoneal covering of the appendix, perityphlitis occurred, causing the abscess. Rupture of the abscess and escape of fœtid pus and the foreign substance into the abdominal cavity caused the fatal peritonitis. Usually, peritonitis, when acute and general, can be readily diagnosticated, but in some instances, as in the present case, a clear and certain diagnosis cannot be readily made. He once attended a young woman in her confinement, who immediately after the birth of her child, had intense general peritonitis, of which she died in a few days. At the autopsy he found that a similar abscess, produced by the perforation of the appendix by a baked bean, had ruptured. Were such a case without an autopsy reported at any of our medical meetings, nowadays, it would undoubtedly be said that the patient died of septic peritonitis, and the neglect to wash out the uterine cavity would be deplored.

It appears from the history of this case, and of others, that in a considerable proportion of instances perforation of the appendix does not cause immediate death, but gives rise to perityphlitis and an abscess, which so long as it does not rupture into the peritoneal cavity is not fatal. If the physician be consulted before the abscess rupture, it seems probable that he might, as a rule, save the life of the patient by opening it externally. Life thus, in one instance that had been reported to him, had been saved in this way.

Dr. Ferguson referred to a case in which impaction of fæces produced necrosis of about one-half of the vermiform appendix. In four or five cases he had found the last inch of the appendix involved by the necrotic process. In one case he found the appendix normal except at its very tip, where there was a very small opening, and a bean was found in the peritoneal cavity so large that he was unable to push it through the opening without using considerable force.

Dr. Janeway remarked that the symptoms in some of these cases are very obscure. And even when an abscess has formed it does not necessarily kill directly. He then referred to a case in which an abscess was found in the right iliac fossa with perforation of the appendix that had probably existed for three or four months, as there was remaining only a small cheesy focus. Besides this there were found multiple abscesses of the liver and brain.

The President thought there was no doubt that, if the diagnosis had been made, the patient in Dr. Smith's case could have been relieved by the usual surgical operation.

Dr. Scott had seen a few cases, but he was unable to find, at autopsy, the foreign body which caused the perforation of the appendix. He inquired whether ulceration and perforation might not occur without the presence of a foreign body.

Dr. Janeway had seen ulceration and perforation of the appendix in typhoid fever, and without the presence of a foreign body. On the other hand, it has been supposed that when the vermiform appendix was invaded by foreign bodies ulceration always occurred. He had seen two cases, however, in which there was enormous enlargement of the appendix, without ulceration, in one as large as a child's head, in the other as large as a bologna sausage. One was found in the body of a woman, the other in the body of a man. The largest contained mucus and débris with white flakes which were degenerated epithelial cells, the other clear serum.

The President referred to a case of perityphlitic abscess in which rupture took place into the rectum, and the patient recovered.

The Society then went into executive session.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, April 17, 1884.

Horace T. Hanks, M.D., Vice-President, in the Chair.

DUPUYTREN'S FINGER-CONTRACTION — ITS NERVOUS ORIGIN.

Dr. Robert Abbe read a paper on the above subject, in which he first alluded to the deformity as described by the French surgeon Dupuytren, and then gave the anatomy of the palmar fascia. He also directed attention to the history of the disease, as found in the writings of Sir Astley Cooper, Geoyrand, Dr. A. C. Post, of New York; Dr. W. W. Keen, of Philadelphia; and Mr. Adams, of London. Throughout the literature of the subject Dr. Abbe had found little reference to the associated pain, and though he was aware that many of the cases were without it, there were many where it was an important symptom. Dr. Abbe then gave the history of ten cases with the following conclusions: First of all, there was a decided prominence of nervous manifestations, in the majority of cases resembling spinal reflex action, and he would venture to assume the following working hypotheses as capable of explaining fully the symptoms observed in this disease.

First.—A slight traumatism, often entirely forgotten.

Second.—A spinal impression produced by this peripheral irritation.

Third.—A reflex influence to the part originally hurt, producing insensible hyperæmia, nutritive tissue disturbance, and new growth, shown in the contracting bands of fascia and occasional joint-lesions resembling subacute rheumatism.

Fourth.—Through the tense contractions a secondary series of reflex symptoms, neuralgias, and general systemic disturbance. If these could be proved it would

give an agreeable substitute for the now commonly accepted theory of gout, a blood disorder, as a cause.

Dr. Abbe then alluded to the disposition of the profession to regard any joint implication of an acute or subacute form as of rheumatic or gouty character, and directed attention to the nerve theory of acute rheumatism, as stated by Dr. J. K. Mitchell, of Philadelphia, in 1831 and 1833; also the views of S. Weir Mitchell, concerning spinal arthropathies, followed by the views set forth by Charcot concerning the essential nature of the same affection.

There was in his mind little doubt that the local contraction was responsible for many of the symptoms which had been attributed to a gouty origin; but it might be asked why does it so often occur where no traumatism can be assigned to start the trouble? On the contrary, Dr. Abbe referred to two cases among his number where traumatism preceded the contraction, as well as in the first case which Dupuytren reported.

The favorite method of operating is that of multiple subcutaneous incisions, practised by Adams, of London, resorting to just as many as are needed to break up the continuity of the contracted band. With reference to the number, Dr. Abbe thought it made little or no difference if they were carefully made, as antiseptic dressings would protect from all danger. From Dr. Abbe's experience one important suggestion might be drawn, namely, do not keep the hand over-stretched after cutting, by binding it too tightly on splints. He believed the general fascial inflammation following is due to nerve irritation incident to this, and that we should do better to keep the hand only so far extended at first as not to give pain. He had not operated by the method practised by Busch, of Bonn—lifting a long, V-shaped skin flap in the palm and dissecting out the contracted bands and allowing the wound to granulate, but regarded Adams' method as one which left nothing to be desired.

Dr. R. F. Weir said he had noticed the nervous symptoms which were present in this form of contraction of the fingers, and had become pretty thoroughly converted to the view of the nervous origin of the trouble. He believed that the difficulty, however, might originate in traumatism. He fully agreed with the author of the paper as to the advantage of multiple incisions, and thought the remark made, not to stretch the fingers back to their perfectly normal position at first, was a wise one.

Dr. A. C. Post said his attention was directed to this subject many years ago, and he perhaps was the first American surgeon to bring it before the profession in this country. Of late years he had not been in the habit of seeing many cases. He never could understand why surgeons should have supposed the contraction was one of the flexor tendons instead of contraction of the fascia. In the cases which he had operated upon, open incisions into the integument were made, dividing the contracted bands, and he thought there was little danger attending either method. There had been no difficulty in extending the hand after the operation, but there had been difficulty in developing normal power of flexion, and the after-treatment was attended with a good deal of pain and inconvenience to the patient, but the final result had been satisfactory. He believed a traumatism had occurred in all the cases which he had seen, often due to the patient's (who had previously been engaged in some lighter occupation) taking unusual exercise, as in rowing or playing ball. He did not know that any of his patients had been affected with gout or rheumatism. The flexion chiefly involved the metacarpo-phalangeal articulation of the ring or little fingers, sometimes the second phalanx, and very rarely the distal. In one instance the sheath of the flexor tendon was involved, and its division was followed by more than the usual amount of inflammation.

Dr. Frank H. Hamilton said that when Dupuytren first made his observations he tried his method of treatment, but not with great satisfaction. So far as the theory which the author had propounded was concerned, it had occupied his mind for a great many years, namely, that the malady was primarily of neurotic origin; that trophic changes had occurred, which were due to certain lesions of the nervous system. A similar condition took place in a ligament when, for a period, it was in disuse, and after about a year's time could no longer be stretched, but required to be cut to straighten the joint. Thus it could also be understood why some time was required for the patient to regain power in the flexor tendons after the contracted fascia had been divided. It required a certain amount of use to regain normal function of the tendons. He doubted whether all cases were of traumatic origin, but believed some were due to disuse of certain fingers in the occupation of the individual. That disuse or permanent position might cause the disease, he had little doubt. This would also account for the little and ring fingers being most commonly affected, as these were more frequently subjected to a fixed position.

Dr. L. A. Sayre said he could give the theory of the neurotic origin of the disease his hearty concurrence. Most of the cases which he had seen had been accompanied by pain, the pain commencing even before contraction took place, and continuing perhaps for months. He believed all the cases which he had seen had had traumatism. Since he had adopted Mr. Adams' method of operating he had obtained much better results in treatment. The suggestion which had been made by Dr. Hamilton with reference to atrophy, seemed to him an important one, and pointed out the necessity for manipulation after the operation. Indeed, some of the best results which he had seen from treatment had been obtained by massage alone, no operation having been performed.

Dr. V. P. Gibney could bear testimony to the painful and distressing neuroses which many of Dr. Abbe's patients had suffered. He had had similar cases himself which were attended by symptoms pointing to implication of the nervous system. It seemed to him there was an analogous condition in certain cases of club-foot in which he had, during the course of treatment, divided contracted fascia, which enabled him to get better and more permanent results. The question as to the neurotic origin and traumatism in connection with Dupuytren's contraction of the hand, he thought had been very satisfactorily set forth in the paper.

Dr. A. L. Ranney had some years ago made a number of dissections of the hand, for the purpose of determining whether or not any fasciculi of the palmar fascia went to the thumb, and he had in each instance been able to find some, although not numerous. He had always doubted the assumed rheumatic or gouty origin of the disease, and was disposed to consider it due to a nervous lesion, although he did not think we need exclude entirely the possibility of influence of gout and rheumatism. He could easily comprehend how the disease might take place without a traumatism. Position alone might give rise to nervous lesions leading to such symptoms, as was illustrated in "writer's cramp," which was now regarded by all as of nervous origin. Pressure upon the ulnar nerve at the elbow, from the habit men commonly had of resting upon that part, might go to account in part for the greater frequency of the lesion on that side of the hand, and also for the fact that it occurred more frequently among men than women. The slow progress of the atrophy in the fascial bands might be accounted for by the gradual implication of the nerve-centres in relation to the affected parts, and the affection of the corresponding part in the opposite hand was due to a lesion in the centre of nervous supply of those parts becoming affected by sympathy with their fellows.

Dr. R. W. Amidon had seen several of the cases narrated by Dr. Abbe, and since then had observed one in which the contraction of the fingers was accompanied by certain other peculiar nervous phenomena. The man had had two attacks of complete loss of power in both

legs, lasting for some hours, and then passing entirely away, and unaccompanied by loss of consciousness. He had also lost sexual appetite and power for two years past.

Dr. Post suggested that one reason why the deformity occurred in the ring and little fingers more commonly than in the others, was the fact that traumatism took place on this side of the hand more frequently than on the other, the thenar eminence directing the blow to the inner side of the hand.

Dr. Abbe closed the discussion, exhibited some patients upon whom operations had been performed, and remarked, concerning massage, that in some of these cases, and in many reported by other gentlemen, massage had been practised for months and perhaps years without any benefit. Massage, however, was preferable to stretching.

The Academy then adjourned.

Correspondence.

OUR LONDON LETTER.

(From our Special Correspondent.)

OUT-PATIENT DIFFICULTIES—FREE CLINICS AND PAYING CLINICS — THE DUBLIN DOCTORS AND THE BELFAST MEETING—COMING CANDIDATES FOR THE PRESIDENTIAL CHAIR AT THE COLLEGE OF PHYSICIANS—PITMAN, CLARK, GULL—LECTURERS AT THE COLLEGE OF PHYSICIANS—DRS. CLIFFORD ALLBUTT, HUGHLINGS JACKSON, AND ANDREW—ELECTION OF PRESIDENT—THE MEDICAL COUNCIL—SANITARY MEASURES IN THE PORT OF LONDON—RECENT DEATHS—DR. ALLEN THOMSON AND MR. PETER SQUIRE.

London, April 12, 1884.

The out-patient difficulty continues to excite discussion. It is undeniable that at most, probably nearly all, of our hospitals patients apply for and receive out-patient relief who are capable of paying a moderate sum for medical attendance. The loss to the hospitals is twofold: first, in the time of its out-patient medical officers; second, in the cost of the medicines supplied. At some hospitals the out-patients attend in such hordes that the work in the out-patient departments is really very severe, occupying, in extreme cases, as much as four or five hours twice a week of the time of each physician and surgeon. There is also always the danger that important cases may be slurred over among such a crowd. What can be expected when two or three hundred patients are seen in four or five hours, even though the physician or surgeon be assisted by clinical clerks and dressers?

On such a scale, too, the cost of the medicines is no trifle. The injury to neighboring practitioners is certainly real, and the remarks made in the recent discussion in The Medical Record are as applicable to London as to New York. In our metropolitan hospitals there is not absolutely a "free clinic" system, as in most of them patients are required to get "letters of recommendation." This is a slight check, and moreover, the pecuniary circumstances of patients are at any rate nominally open to investigation. Only a few hospitals dispense with "letters." Many special hospitals and dispensaries have adopted the "pay system" for out-patients. In some a fixed sum is paid for a week's or month's attendance, in others a sliding scale is in force, and patients pay according to their means. The "occupation" of the patient is often taken as the basis from which to adjudge the weekly sum to be paid. These payments vary greatly in amount. At the special institutions they average from one to two shillings a week. "Pay patients" are not required to procure "letters," so this system, advantageous though it may be for the finances of the institution, is still more injurious to private practitioners. I have known out-patients at special hospitals pay ten shillings a week, and frequently five shillings.

Ordinary out-patients at the large general hospitals are a heavy tax though. A good deal is said about "clinical material." But even from this point of view these departments are not so valuable as might be imagined. The patient gets his advice and medicine and goes on his way, perhaps never to attend again, although he may have gone to considerable trouble to get a "letter." The proportion of patients who attend only once is surprisingly large; still larger is that of patients who attend a few times, and then come no more. The most vexatious part of it is that it is generally the interesting cases that disappear.

The annual meeting of the British Medical Association at Belfast is not to be all sweetness and light. Discontent and jealousy has already arisen, and there is likely to be more. This is partly from the fact that, of the Irishmen chosen to be officials at the coming meeting, about three-fourths of them belong to Belfast or its immediate neighborhood. Dublin has been practically ignored, and the Dublin doctors feel aggrieved. Dublin, being the capital, certainly seems to have some claim to be fairly represented.

It is supposed that Sir William Jenner will soon vacate the presidential chair at the College of Physicians, and the choice of his successor is a topic of the day. Sir Henry Pitman, Sir Andrew Clark, and Sir William Gull are all spoken of as likely candidates. The first-named of these gentlemen is the Registrar of the College, and as such might be thought not to be in a very suitable position from whence to be elevated to the Presidency. Sir Henry Pitman has, however, been once formally proposed as a candidate, viz., when Sir Risdon Bennett was elected. Sir Henry Pitman then obtained a good many votes. The next election (that of Sir William Jenner) was unopposed. For the coming election, then, Sir Henry Pitman may be said to stand a very good chance.

Clark and Gull are both well-known men, and are both physicians with enormous practices. Sir Andrew Clark begins seeing patients in his consulting-room every morning at half-past eight, and even then he cannot be seen without making an appointment in advance. After seeing his "morning patients" he drives out on his rounds, and only returns home to dine toward eight o'clock. Although conducting so large a practice, Sir Andrew is frequently to be seen at societies, and almost as frequently "heard," for he is a ready speaker. Of late years he has come forward a good deal as a scientific advocate of temperance.

Sir William Gull is as well known and probably has nearly as large a practice as Sir Andrew. As a baronet of longer standing he has probably a more extensive connection among the fashionable world. The upper ten, it may be remarked in passing, are not, as a rule, the best patients, and generally only give the sovereign without the accompanying shilling.

Gull is an able man, but not very popular among his fellow-physicians. He got into hot water over the Bravo trial some years ago, and more lately fell foul of Dr. Pavy, one of his colleagues at Guy's Hospital. That gentleman promptly brought him before the Censors' Board of the College, who let him off with a milk-and-water reprimand. The same fate befell him over the Bravo episode. He is, in fact, overbearing and not sufficiently considerate of others. He has offended so many that I shall be much surprised if he is chosen.

A question which has already been somewhat a burning one in London, has recently received a fillip in one of the courses of lectures recently delivered at the College of Physicians. The lecturer was Dr. Clifford Allbutt, now well known as one of the most original men among our provincial physicians; his subject, "Neuroses of the Viscera." Dr. Allbutt maintains that a very large number of every-day ailments are nervous in origin, and that their cure is to be sought in treating them as neuroses, and not as local disorders. The lecturer specially referred to uterine disorders, and narrated numerous cases in which womb affections which had received

no benefit from special treatment were promptly ameliorated when they were recognized as neuroses and treated on general principles. Dr. Allbutt proceeded to "have a fling" at the gynecologists. It is an old tale that they are ready to see uterine mischief in every case, however remote the diseased area may apparently be from the pelvic organs, and the Leeds professor but emphasized the opinion of most general physicians when he protested against this view.

Another course of lectures just delivered at the College was by Dr. Hughlings Jackson, F.R.S., Physician to the London Hospital. Dr. Jackson is probably as well known on one side of the Atlantic as the other as an able and laborious writer on nervous diseases. He is a careful physician and painstaking with his cases, but somewhat abstruse and difficult to follow as a writer. He has frequently been misunderstood by his contemporaries when they have undertaken to criticise some of his written or spoken utterances, and had to explain himself afresh. In his recent lectures he chose as his subject "The Evolution and Dissolution of the Nervous System." They are rather tough, but here and there the lecturer enlivens his subject by a happy illustration. Thus, referring to epilepsy, Dr. Jackson says that the case analogous to epilepsy is when one of the highest navy officials becomes occasionally insane. "Then, by issuing foolish orders to lower officials, 'discharging downward,' he produces widespread and yet slight disturbance in the navy. But by wrongly advising his colleagues, 'discharging collaterally,' he leads them to issue foolish orders to lower officials; leads them to 'discharge downward.' Thus, by a multiplication of foolish orders, the whole navy is severely and universally 'convulsed.' The officials who, in the case of loss of one of their colleagues, work more to compensate that loss, are compelled, when one becomes insane, to co-operate in his excess."

The other course of lectures at the College of Physicians was given by Dr. Andrew, of St. Bartholomew's Hospital, who selected "The Etiology of Phthisis" as his theme. Dr. Andrew avowed himself at the outset an anti-contagionist. He considered that consumption was a specific disease which occurred in both the acute and chronic forms, having a special affinity for the apices of each lobe, and, descending in levels, it attacked the upper part of the lower before it reached the base of the upper lobes. It was not "a mere catarrhal inflammation, a peribronchitis, a chronic apex-pneumonia," but a disease as distinct as scarlatina or gout. Dr. Andrew considered at great length the historical evidence for and against the contagiousness of phthisis, but throughout showed himself an uncompromising opponent of the "contagion" doctrine. Many of his arguments were perhaps not novel, but, as he remarked, "an advocate would surely do his duty in a strange fashion who omitted to state an argument because it was an old one and hitherto unanswered." In these days when it is so customary to refer so many ailments to the influence of bacteria and bacilli it is quite refreshing to hear a hearty outspoken opinion from the opposite point of view.

Sir William Jenner has, after all, allowed himself to be re-elected president of the college. The Medical Council has just concluded a session of eight days. No one knows why they need have sat at this time of year, with a bill before Parliament which will virtually disestablish and disendow them. The present position of the Council is that of a helpless paralytic. They can do nothing except get through their routine work. However, they are paid by the day, and perhaps they thought they might as well spend the money in hand on a visit to London.

The city corporation has just taken steps for securing the notification and isolation of cases of infectious diseases arriving in the port of London. The Port Sanitary Authority of London is the first one which has made regulations to this effect; but as the acts of Parliament under which the regulations are made are dated 1866 and 1875 respectively, great praise for promptitude cannot be awarded the city.

Dr. Allen Thomson, late Professor of Anatomy in the University of Glasgow, has recently died, aged seventy-four. Dr. Thomson is well known by his scientific writings. He had the rare distinction of being professor successively in three out of the four Scottish universities.

Mr. Peter Squire has also just died, aged eighty-six. Mr. Squire was not a medical man, but a well-known pharmaceutist, and the author of "Squire's Companion to the British Pharmacopœia," a work which is perhaps more widely known than the "Pharmacopœia" itself, and has reached the thirteenth edition.

OUR PARIS LETTER.

(From our Special Correspondent.)

THE DIAGNOSTIC VALUE OF TUBERCLE BACILLUS—EXPERIMENTAL RESEARCHES ON CHRONIC ALCOHOLISM—ALCOHOL AS A PREVENTIVE OF TISSUE WASTE—BICHROMATE OF POTASH AS A REMEDY IN CATARRHAL DYSPEPSIA.

PARIS, April 11, 1884.

AT a recent meeting of the "Sociéte Médicale des Hôpitaux," Dr. Grancher read a very interesting paper on the diagnostic value of the bacillus of tuberculosis. Without wishing to depreciate the value of the presence of bacilli as a means of diagnosis in pulmonary phthisis, he thought too much time and labor were devoted to the searching of this new sign, to the prejudice of the other time-honored and classical methods of investigation. He was led to make these remarks from several cases which had come under his own personal observation in his hospital and private practice, and from those of other physicians in which there were unequivocal signs of pulmonary tuberculosis, and yet no bacilli could be detected, notwithstanding the most careful search for them by the classical methods in vogue. There is no question, he added, that when once the presence of bacilli in the sputa is established, this sign would be of greater value than all the signs furnished by percussion and auscultation. This fact, however, should not be allowed to supplant the other means of diagnosis. The bacilli make their appearance rather tardily in the sputa, that is in ordinary tuberculosis, and not that which is manifested by a rapid ulcerative process; and to wait for the appearance of this sign to institute a course of treatment would be to commit a grave and culpable error. Moreover, the difficulties attending the searching of the bacilli are almost insurmountable, and if to this fact be added the time taken up by the investigation, Dr. Grancher did not think that the neglect of the other means would, in any way, be compensated for. The following is a summary of the conclusions as formulated by Dr. Grancher: "The discovery of the bacillus of tuberculosis should not in any way supersede the practice of auscultation and percussion. In cases of doubtful tuberculosis, the presence of bacilli in the sputa would furnish, as a diagnostic sign, an element of incontestable certainty. But to make an early diagnosis, it is always auscultation that it would be necessary to have recourse to."

I may, however, here observe that the above declaration does not quite tally with that made by Professor Koch, of Berlin, Professor Germain Sée, of Paris, and others, who, it will be remembered, found the bacilli in the sputa of patients suffering from pulmonary tuberculosis long before the manifestation of any other symptom of the disease.

A short time ago, Dr. Dujardin-Beaumetz, in conjunction with Dr. Audigé, made some researches, experimentally, on chronic alcoholism. The result of their investigation was that when a poisonous dose of different kinds of alcohol was administered to dogs, the effects produced were proportional to the solubility and volati-

bility of the alcohols, also to the elevation of their atomic weight. But as it was objected that the experiments performed on dogs were not comparable with what takes place in man, the experiments were directed on pigs, and the following is the result of those experiments, which Dr. Dujardin-Beaumetz lately communicated to the Academy of Medicine: The researches were carried out on eighteen pigs, covering over a period of three years. These new researches confirmed the results previously obtained with the dogs, that is to say, the alcoholic phenomena varied with the kind of alcohol administered. The different derangements during the life of the animals and the lesions observed at the autopsy, were the more accentuated according to the impurity of the alcohol ingested. For instance, non-rectified alcohol of grain, beet-root, and potatoes determined, all things being otherwise equal, grave accidents, whereas the same alcohols, properly rectified, produced but very little disturbance, whether functional or anatomical.

After these experiments, Dr. Dujardin-Beaumetz was induced to extend his investigations further, in order to ascertain the modifications that alcohol underwent in the organism. It has often been questioned whether ingested alcohol is rejected unchanged from the system, as believed by M. Maurice Perrin and others, or whether it is consumed in the body. Dr. Dujardin-Beaumetz admits that the question is extremely difficult to resolve. Nevertheless, he thinks that when alcohol is ingested in small doses, it is transformed first into acetic acid and then into the acetate of soda. Taken in moderate quantity, one portion of it enters the blood unaltered, and it is in passing through the lungs where, placed in contact with the oxygen of the air, it is transformed into acetic acid. In large doses, the alcohol dissolves the hæmoglobin; it produces hemorrhages; the transformation of the alcohol into acetic acid does not take place; the alcohol is diffused through the entire economy and passes out of it unaltered. To sum up, Dr. Dujardin-Beaumetz stated that alcohol may be considered an aliment, but an aliment of a special character, that is, one that prevents the waste of tissue ("aliment d'épargne"), as instead of hastening the process of combustion it retards the latter, in withdrawing a certain quantity of oxygen from the blood-globules; hence the antithermic property of alcohol, which attains its maximum by the ingestion of toxic doses, as there is then destruction of the hæmoglobin and even of the globules themselves. Besides this property, alcohol has a direct action on the nervous centres, sometimes determining tonic effects, at others effects of intoxication, according to the doses administered.

Until now the bichromate of potash has been employed principally as an external remedy; its administration internally not having hitherto produced very satisfactory results, it had been set aside as a therapeutic agent. Professor Vulpian, however, has studied its therapeutic action when administered by the stomach. He has ascertained that the bichromate of potash produces good effects in certain cases of dyspepsia, particularly in that form connected with a catarrhal or gouty affection of the stomach, presenting a certain analogy with the phenomena attended at the commencement with the development of epithelioma of that organ. Professor Vulpian administered the bichromate in the form of pills in preference to solution, never exceeding ten centigrammes, or about two grains, a day, and he never noticed any toxic effects produced thereby.

At the last meeting of the Biological Society of Paris Dr. Quinquaud read a short note from Dr. Philippeaux, in which the latter states that the best manner of preserving dead bodies is to cover them over with a layer of bran and fill the coffin with charcoal powder. The body of an animal thus preserved was found at the end of fifteen months mummified and without any odor.

THE AVERAGE CONSULTATION FEE in New York is ten dollars, the maximum, twenty-five dollars.

NEEDED REFORMS IN TRANSATLANTIC MEDICAL SERVICE.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR: Infectious disease is the only foreign enemy which threatens, and may one day invade and decimate the United States. The danger is not visionary. Small-pox and other zymotic fevers are practically endemic in many of the larger European cities, but being usually confined within narrow bounds seldom excite public attention, yet there are times when, even in England, the pestilence stalks forth from the slums to scatter disfiguration and death among the wealthiest and the highest.

Why may it not do so here? New York sanitation is notoriously far from perfect. Lesser outbreaks are of frequent occurrence throughout the country, and since the conditions, atmospheric or otherwise, which occasionally break down all limitations of infection are more or less undetermined who can question the possibility of our being brought face to face with the national disaster of an uncontrollable epidemic?

This much is certain: the present defective sanitary administration on ocean steamships offers an easy ingress to infection, which existing quarantine arrangements are powerless to oppose.

When, as not unfrequently occurs, zymotic fever appears on shipboard during the transatlantic passage it is evident that many of the persons in such necessarily close proximity to the sufferer are likely to contract the disease unless efficient isolation and disinfection are immediately enforced. It is equally certain that when the period of incubation is unfulfilled at the time of disembarkation, neither will these persons have been of any inconvenience to the ship officials while on board, nor can the most careful examination at quarantine distinguish them from the healthy. They are therefore permitted to proceed to their various destinations, there to become centres of possibly indefinite dissemination.

That this actually happens, and frequently, is proven by the fact that almost every appearance of zymotic disease in any part of the United States is—as the present outbreak of small-pox at Easton, Pa.—directly traceable to the recent advent of immigrants.

The reasons are not far to seek: the medical officers of steamers are appointed by the owners without due regard for their fitness for the post, and remain dependent upon persons whose first, if not only care, is to make the voyage with as little expense and inconvenience as possible; they are not allowed a particle of independent administrative authority in even the most purely sanitary matters, nor are they provided with the means necessary to combat disease; and lastly many of the vessels employed are so constructed that the isolation of infectious disease is absolutely impossible.

A recent example is from many points of view interesting: A steamer, belonging to one of the reputedly safest transatlantic lines, arrived at this port some months ago with a saloon passenger on board suffering from small-pox, and shortly after arrival another case was discovered in the steerage.

The vessel was granted *pratique*, discharged her passengers, returned to England, and in due course arrived here again with another consignment of passengers, and another case of small-pox:—this time a steward who had served on the ship during the previous voyage, but who only developed symptoms of the disease thirty-two days after the former cases had been removed.

There are persons, and apparently in authority, satisfied with the assumption that cases of infectious disease following thus closely one upon another are unfortunate coincidences for which no one may be held responsible. In the public interest more careful inquiry would seem to be desirable.

The interval of time precludes the possibility of this steward having been infected directly by either of the former cases or during his stay in this city. It is highly im-

probable that he contracted the disease from an independent source at Liverpool, since small-pox was not prevalent there. Remaining is the choice of two equally unpalatable solutions: either the steamer was inefficiently disinfected after the removal of the first cases, and variola germs surviving not less than sixteen days after the supposed disinfection (?) infected this man during the latter days of the eastward passage; or, there were a succession of small-pox cases on board this vessel, which were not recognized, or were intentionally concealed from the health officer of this port, and from the public.

A visit to the ship strongly confirmed the last supposition. The hospitals for infectious disease were situated not upon the upper deck, but between the decks, in the foremost part of the vessel, opening off, and ventilated *exclusively* into, a covered-in passage running through the first-class saloon the entire length of the vessel. In fact if the builders had set themselves the task of constructing and locating these hospitals so as to disseminate throughout the inhabited part of the ship every germ of infection coming from within, such an end could scarce have been more skilfully attained. And this is not an isolated instance of the total disregard of sanitary law on ocean steamers.

Within five months dating from January 11, 1882, no fewer than twenty vessels infected with small-pox entered the port of New York. Upon four only was even partial quarantine enforced. The remaining sixteen were granted *pratique* as soon as the passengers and crews had been vaccinated. No doubt it was better to vaccinate than do nothing, but under the circumstances vaccination cannot be regarded as affording protection, since it is admitted that it does not even modify small-pox, previously contracted, unless it has been so timed that the maturation of the vaccine vesicle shall precede the period of variolous invasion.

An order by which the surgeons of transatlantic steamers are required to vaccinate the steerage passengers within twenty-four hours after starting is in most instances practically ignored—seldom complied with during the time specified, and when attempted, with what results may be judged from the report of the health officer.

One surgeon reported two hundred vaccinations of which *not one proved to be successful*, another two hundred and fifty with but two successes, and so on.

But even if this order were carried out to the letter it would be at best but a choice of evils—and I think the wrong one. That the medical officer of a crowded steamship should neglect other more pressing duties to vaccinate steerage passengers during the first day, or even days, of the voyage would be manifestly inexpedient for the public welfare. On other grounds it would be both cruel and unscientific: cruel, as unnecessarily disturbing persons already miserable, many of whom would be in the throes of sea-sickness, and might claim at least to be let alone; unscientific, and calculated to discredit this most valuable of prophylactics, as challenging an epidemic of erysipelas under conditions combining to favor its development and spread.

Thus is quarantine administered in the United States, and thus is the country sown broadcast with foreign infection which will assuredly one day take root and flourish.

Is it wise to wait until the panic of that day shall call forth extreme precaution in measures repressive of convenient travel and healthful immigration?

Surely it were better that Congress should now by moderate legislation guard the country against pestilence, and insure the protection of intending citizens during the ocean transit.

This may be secured by: (1) requiring all persons coming to the United States to show evidence of having been vaccinated not less than fourteen days previous to embarkation; (2) by insisting that vessels carrying passengers shall provide proper hospital accommodation, and necessary assistance for the care of the sick; and (3) by establishing a competent service of marine medical officers, who being independent of interested influences, and responsible to Government for the discharge of their duties and intelligent co-operation with the quarantine authorities, would be some guarantee that the laws should be observed throughout the voyage.

I am, sir, your obedient servant,

J. A. Irwin, M.A. Cambridge, Eng., M.D.,
Late Physician to the Manchester Southern Hospital for Women and Children.
363 Fifth Avenue, N. Y.
April 19, 1884.

Army and Navy News.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, United States Army, from April 13, 1884, to April 19, 1884.

Newton, R. C., First Lieutenant and Assistant Surgeon. Relieved from duty at Fort Sill, Indian Territory, and ordered to Fort Elliott, Tex., for duty. S. O. 77, par. 1, Headquarters Department of the Missouri, April 14, 1884.

Pilcher, James E., First Lieutenant and Assistant Surgeon. Assigned to duty at Camp Poplar River, Montana, S. O. 36, par. 2, Headquarters Department of Dakota, April 7, 1884.

Chapin, Alonzo R., First Lieutenant and Assistant Surgeon. Relieved from duty at Fort Douglass, Utah, and ordered to Fort Laramie, Wyoming, for duty. S. O., 33, par. 2, Headquarters Department of the Platte, April 15, 1884.

Wales, Philip G., First Lieutenant and Assistant Surgeon. Ordered to report to the Commanding General Department of the Columbia, for assignment to duty. S. O. 84, par. 11, A. G. O., April 11, 1884.

Official List of Changes in the Stations of Medical Officers U. S. Navy, for the week ending April 19, 1884.

Wales, P. S., Medical Director. To continue on duty as member of Ration Board.

Wells, H. M., Surgeon. To special duty at Hot Springs, Ark.

Peck, George, Medical Director. Ordered as President of Board of Medical Officers, detailed for special duty at Coaster's Island, near Newport, R. I.

Gorgas, A. C., Medical Director. Member of Board of Medical Officers detailed for special duty at Coaster's Island, near Newport, R. I.

Wise, I. C., Surgeon. Member of Board of Medical Officers detailed for special duty at Coaster's Island, near Newport, R. I.

Nelson, H. C., Medical Inspector. Detached from Navy Yard, Washington, and placed on waiting orders.

McMurtrie, D., Surgeon. Ordered to duty at Navy Yard, Washington.

An Interesting Tree.—At a recent meeting of the Berlin Medical Society, Professor Virchow showed photographs of a gigantic plane-tree in the island of Cos, under the shade of which Hippocrates is said, by tradition, to have held medical consultations. The tree now stands in the market-place of the town of Cos, on the east side of the island. The branches, which spread over nearly the whole of the market-place, are supported by marble pillars.

Medical Items.

CONTAGIOUS DISEASES—WEEKLY STATEMENT.—Report of cases and deaths from contagious diseases reported to the Sanitary Bureau, Health Department, for the week ending April 19, 1884:

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Cases.								
April 12, 1884.....	9	4	91	5	88	47	0	0
April 19, 1884.....	19	10	100	4	76	49	0	0
Deaths.								
April 12, 1884.....	1	1	7	5	15	23	0	0
April 19, 1884.....	1	3	19	1	4	12	0	0

ERRATA IN DR. HERMANCE'S ARTICLE.—Page 431, 5th line from top, *binding* should read "dividing." Page 431, 20th line from bottom, should read *Dr. Ward.* Page 431, 3d line from top, should read *intense*, not "internal," and 26th line from top should read *grave*, not "gross." In the next to the last paragraph in the article the word *brains* should be "ovaries."

MORTALITY STATISTICS OF NEW YORK CITY FOR 1883.—Dr. Nagle has sent us the following interesting statistics: The deaths in New York City during the year 1883 were 34,011, which is a decrease of 3,913 compared with that which occurred during the preceding year, and represents an annual death-rate of 25.81 per 1,000 of the population, which was estimated in the middle of the year at 1,317,691. Of the total number of deaths 9,011 were ascribed to zymotic diseases; 7,575 to constitutional diseases; 13,949 to local diseases; 2,150 to developmental diseases, and 1,326 were due to violence. The deaths from some of the most prominent causes are as follows: small-pox, 12; measles, 716; scarlatina, 744; diphtheria, 1,009; membranous croup, 644; whooping-cough, 327; erysipelas, 175; typhus fever, 15; typhoid fever, 471; cerebro-spinal fever, 223; puerperal diseases, 416; remittent, intermittent, typho-malarial, congestive, and simple continued fevers, 525; diarrhœal diseases of children under five years, 2,897; diarrhœal diseases (all ages), 3,398; inanition and want of breast milk, 229; alcoholism, 222; rheumatism and gout, 153; cancer, 678; phthisis pulmonalis, 5,290; bronchitis, 1,435; pneumonia, 3,409; heart diseases, 1,693; aneurism, 81; marasmus, tabes mesenterica, and scrofula, 831; hydrocephalus and tubercular meningitis, 560; meningitis and encephalitis, 749; convulsions (infantile), 514; sunstroke, 83; cirrhosis of liver and hepatitis, 350; all diseases of the brain and nervous system, 2,810; apoplexy, 626; enteritis, gastritis, gastro-enteritis, and peritonitis, 838; Bright's disease and nephritis, 1,854; cyanosis and atelectasis, 248; deaths by suicide, 161; premature and preternatural births, 753; drowning, 245; surgical operations, 39; deaths of persons seventy years of age and upward, 2,345; deaths of children under one year old, 8,671; deaths of children under two years of age, 11,325; deaths of children under five years of age, 13,856. The deaths for the year 1883, compared with the previous year, show a decrease of 3,411 in the zymotic class, 258 in the constitutional, 172 in the local class, 22 in the developmental class, of 50 in the violent deaths. The average age of those reported to have died during the year from small-pox was twenty-seven years, eight months, fifteen days; from measles, two years, six months, eleven days; from scarlatina, four years, three months, twenty-one days; from diphtheria, four years, four months, twenty-eight days; from croup, two years, nine months, fourteen days; from whooping-cough, one year, five months, eight days; typhus fever, twenty-eight years, fifteen days; from typhoid fever, twenty-six years, three months, twelve days; from cerebro-spinal fever, seven years, twenty-two days; and from malarial fevers, twenty-five years, four months, seventeen days. The number of deaths from measles in tenement-houses was 515, and in houses containing less than four families 97; from scarlatina 520 deaths were reported in tenement-houses and 187 in "private" dwellings; 627 deaths from diphtheria were reported in tenement-houses and 338 in "private" houses; 464 deaths from croup were in tenement-houses and 144 in "private" houses; 240 deaths from whooping-cough were in tenement-houses and 69 were in private houses; 186 deaths from typhoid fever were in tenement-houses and 115 in private houses; 147 deaths from cerebro-spinal fever were in tenement-houses and 52 were in private houses; 272 deaths from malarial fevers were reported in tenement-houses and 211 in private houses. Nearly all the deaths from small-pox and typhus fever were in institutions, as these cases are sent to the Hospital for Contagious Diseases, unless they can be properly isolated and cared for. The total number of deaths during the year 1883 in institutions was 6,955, and the deaths reported in tenement-houses 18,359, and in private houses 7,770.

NEPHRITIS AFTER VARICELLA AND AFTER MUMPS.—Henoch has recently reported four cases of post-varicella nephritis. He regards it as analogous to the nephritis after other infectious diseases. We have elsewhere referred to the case of post-parotitis nephritis. These are both rare pathological forms.

ALOES IN PREGNANCY.—Aloes is very commonly given to pregnant women in this country, hence the following letter from Dr. William J. Mackie to the *British Medical Journal* will be of much interest. He says: "In the *British Medical Journal* of January 5th, page 41, is a letter from Dr. Walford, advocating more freedom in the administration of aloes in pregnancy and suspected pregnancy. While admitting that the general fear of bad effects in pregnant women from moderate doses of aloes is, to some extent, excessive, yet I may say, on behalf of those who observe considerable caution in its employment in such cases, that I knew a lady (now dead) who took aloetic pills, on the advice of an injudicious friend, to relieve the constipation of pregnancy; and, the first dose producing no effect, took a second dose the following night, with the result of inducing premature confinement; she had no tendency, either before or in subsequent pregnancies, to this termination. The dose of aloes was, no doubt, large, through unduly rapid administration; its effects, however, cannot be accounted for by general violent disturbance, but there is every reason to believe that they depended on the oxytocic properties of the drug. As we find aloes one of our most useful medicines in certain cases of piles, so, I have no doubt, it may be carefully administered in some of the disturbances of health dependent on, or associated with, pregnancy, with good results; but I cannot think that the widespread caution observed by medical men in the employment of aloes during the period of gestation is based upon tradition and prejudice alone."

LIGHTING DOCTORS' GIGS WITH ELECTRICITY.—An apparatus for lighting doctors' gigs or broughams by electricity has been successfully used in England. The Swan light is used, and a portable battery.

GO EAST, YOUNG MAN.—Dr. T. W. Kay, writing to the *Medical Chronicle* from Beyrout, Syria, strongly advises his readers who want to rise in the profession to go East. "The East," he says, "is the place for a man who wants work in the medical line, and who really wants to find where he can do the greatest amount of good. There you can have any amount of work and in any line that you like, except ovariotomy. Civilized communities seem to particularly claim this speciality."

The Medical Record

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Original Articles.

ON ETHERIZATION BY THE RECTUM.

BY WILLIAM T. BULL, M.D.,

SURGEON TO THE NEW YORK AND ST. LUKE'S HOSPITALS.

SINCE April 15th, when I read M. Mollière's note in the *Lyon Médical*, of March 30th, a notice of which appeared in THE RECORD of April 26th, ether has been administered by the rectum to patients in my service at the Chambers Street and New York Hospitals. Dr. J. B. Hunter has furnished me with notes of two etherizations from his service at the Woman's Hospital. The mode of administration was the same in every instance. The ether (Squibb's) was contained in a bottle, which was connected by a rubber-tubing (eighteen inches to two feet in length) with the vaginal nozzle of a Davidson syringe. The tube was introduced into the rectum, and the bottle placed in a vessel containing water at a temperature varying from 120° to 140° F. The ether boiled actively when the bottle was first immersed, and its vapor was given off freely; but at the expiration of five or ten minutes, when the temperature of the water had fallen several degrees, the boiling almost ceased, and it was found necessary to add hotter water to reproduce it. Some patients were prepared by withholding food for six or eight hours, and in one or two the bowels were moved by enema before etherization. In the following table, where these precautions are not mentioned it may be inferred that they were not observed.

For convenience of reference I have placed in the left hand column the data, the sex, age, and occupation of the patient, the operation, the time required to produce complete anæsthesia, the time during which the etherization was continued *after* that stage was reached, and the quantity of ether used. In the right hand column will be found only facts relating to the patient's condition before, during, or after the etherization. The time which elapsed before complete recovery took place has not been noted.

I.—Healthy working-girl, eighteen years. Removal of carious carpal bones; anæsthesia complete in six and one-half minutes; ether continued for ten minutes; quantity, ℥ ij.

There was no stage of excitement, no suffocation, no vomiting or nausea, though she had the taste of ether for six hours. She had eaten nothing since seven hours before operation.

II.—Sailor, eighteen years. Amputation of two fingers; anæsthesia complete in thirty-two minutes; ether continued twenty minutes; quantity, ℥ vj.

There was no stage of excitement or sense of suffocation. Vomited half an hour afterward. He had eaten a hearty dinner two hours before operation.

III.—Laborer, forty-two years. Perineal section for extravasation of urine; anæsthesia complete in fifteen minutes; ether continued with Allis' inhaler for ten minutes; quantity by rectum, ℥ iij.

A stage of mild excitement at end of five minutes, when the Allis inhaler was used for thirty seconds. No vomiting. No food since ten hours before operation. No sense of suffocation.

IV.—Laborer, twenty years. Amputation of finger; anæsthesia complete in twenty-five minutes; ether continued for ten minutes; quantity, ℥ vj.

No stage of excitement. No vomiting. Had eaten no food for five hours.

V.—Laborer, thirty-three years. Removal of carious phalanx and metatarsal bones; anæsthesia complete in ten minutes; ether continued for fifteen minutes; quantity, ℥ iijss.

An unusually strong man, 6 feet 3 inches tall. Violent stage of excitement, during which the inhaler was used. Profound anæsthesia for twenty minutes after withdrawing the rectal tube. No vomiting. No food since six hours.

VI.—A boy of sixteen years, who had been four weeks in bed with fractured femur. Application of gypsum splint; anæsthesia complete in fifteen minutes; ether continued twenty-five minutes, when anæsthesia was so profound as to cause alarm; quantity, ℥ iij. ℥ vj.

Had eaten breakfast two hours previously. Ten minutes after the tube was introduced he vomited. Inhaler used for half a minute. No excitement. At the end of twenty-five minutes the breathing was stertorous, face cyanotic, pulse feeble, surface cold. Gradual return of consciousness in an hour, after using stimulants hypodermically and the hot-air bath. No further vomiting. No diarrhœa.

VII.—Housekeeper, forty-eight years; robust. Removal of necrosed phalanx. Muscular relaxation in twenty minutes and no sensation in the hand; this partial anæsthesia continued for fifteen minutes; quantity, ℥ iijss.

No food for several hours. No vomiting or other bad effects. At seventeen minutes, moderate struggling. Conjunctiva remained sensitive even after the inhaler was used for three minutes.

VIII.—Laborer, twenty-six years. Incision of meatus urinarius; anæsthesia complete in twenty-three minutes; ether continued for two minutes more; quantity, ℥ iij. Time, 9 P.M.

At the end of ten minutes, stage of excitement, during which he jumped off the table, and ten minutes more elapsed before the tube was again introduced. Moderate distention of the bowel was observed, and through a rectal tube introduced after the operation much gas came away. Vomited once; had several loose stools with tenesmus during the night.

IX.—Female, twenty-four years; a steady drinker. Removal of wire sutures; had taken ether three or four times; anæsthesia complete in seventeen minutes; ether continued for twenty minutes; quantity, ℥ v. Time, 2 P.M.

Stage of excitement in fifteen minutes; inhaler used for two minutes; after removing it the sensitiveness of the cornea returned and there were muscular movements, but the skin was insensitive. No vomiting; a loose passage during the etherization, and four during the night.

X.—Laborer, eighteen years. To examine abdomen and bladder; anæsthe-

After four minutes there was struggling, which forced out the tube and soft fæces.

sia complete in five minutes; ether continued for ten minutes; quantity, ʒ iss.

XI.—Laborer, fifty years; tall and muscular. Ligation of hemorrhoids; anæsthesia completed with aid of inhaler in twenty minutes; continued by rectum for ten minutes, then by mouth for ten minutes; quantity, ʒ iv. to ʒ v.

XII.—Clerk, twenty-five years. Incision of cold abscess of thigh; anæsthesia complete in eleven minutes; ether continued for forty minutes; quantity, ʒ iv. Time 2.30 P.M.

XIII.—Female, forty-five years. Incision of ischio-rectal abscess; anæsthesia complete in ten minutes; ether discontinued; quantity, ʒ ij.

XIV.—Laborer, twenty-four years. Rupture of anchylosis of wrist-joint; muscles relaxed in twenty minutes; anæsthesia complete in thirty minutes; ether continued ten minutes; quantity, ʒ ivss.

XV.—Laborer, sixty-five years. Excision of epithelioma of lip; by the rectum for twenty minutes; duration forty minutes; quantity by rectum, ʒ iv.

XVI.—Female, twenty-four years. Curetting uterus, by Dr. Hunter; anæsthesia complete in six and one-half minutes; continued for fifteen minutes; quantity, ʒ ij.

XVII.—Female, thirty years. Curetting uterus, by Dr. Hunter; anæsthesia complete in eight minutes; continued for twelve minutes; quantity, ʒ iss.

Inhaler for less than a minute. Rapid recovery without vomiting or diarrhœa. Four hours after breakfast.

At the end of fifteen minutes there had been no effect but a moderate muscular excitement. He complained at the outset of "wind," and forced much of the gas out. Vomited once, no diarrhœa. Breakfast four hours previously.

No food for six hours. After six minutes had elapsed mild excitement for three or four minutes only. Vomited once after the operation. During the night five loose movements, three of which were tinged with blood. No pain or tenesmus.

No food for six hours. Enema. No stage of excitement. Much gas escaped. Vomited once after operation. Three loose passages. No pain.

Breakfast four hours previously. Short stage of excitement at the end of six minutes. Vomited mucus five minutes after tube was withdrawn. Opium suppository. Fourteen passages in the twenty-four hours following the operation.

Anæsthesia produced with inhaler, then continued by the rectum. Vomited once. Five loose movements, streaked with blood. No pain.

No food for several hours. Enema. No stage of excitement. Vomited once; no diarrhœa. No sense of suffocation.

No food for several hours. Enema. No stage of excitement. Vomited once; no diarrhœa.

Several phenomena, which have not been noted, have been common to all these cases. The first "new sensation" experienced has been the distention of the bowel with the gas, but this has not generally been painful, nor given rise to straining. The gas has frequently escaped pretty freely beside the tube. At the expiration of three or four minutes the odor of ether has been detected in the breath. The face has then become flushed, the breathing a little slower and deeper, the patients have yawned a few times, and then, when no stage of excitement has ensued, have gradually lost consciousness, breathed stertorously, and all sensation and reflex action have been suspended.

I have hastened to make public these observations, while they are still too few and too superficial to permit any close study of this method of etherization, because of the one symptom which cannot escape observation, the diarrhœa. Seven out of seventeen patients have had loose passages, containing blood in two instances. In these seven patients the duration of the etherization has varied from ten to forty minutes, and the quantity of ether administered from three to five ounces. There has been little or no pain or tenesmus and no constitutional disturbance accompanying this diarrhœa, which has ceased without the aid of medicine. But its occurrence in so large a proportion of these patients leads me to the conclusion that ether may be very dangerous when employed in this way, and should not be administered recklessly. In even smaller quantities than any of my patients have absorbed it might in young or enfeebled persons produce death from diarrhœa and collapse.

"M. Mollière thinks that anæsthesia by the rectal method is destined to be of great service in many cases. It suppresses the period of excitation; it permits one to regulate the dosage very exactly; it reduces to a minimum the amount of ether needed; it allows the surgeon to operate upon the face; it is a more agreeable method to those patients to whom the odor of ether is nauseating and objectionable." These advantages, which are claimed for the rectal etherization, are not all confirmed by my experience. I find that it does not suppress the period of excitement, and that as a rule a much longer time is required to produce complete anæsthesia than with any of the inhalers or the "towel cone." In several cases it has been impossible to etherize without the aid of the cone. The manipulations are likely to be disagreeable to patients as well as to doctors, and the apparatus cumbersome. It certainly requires *less* ether, and patients are free from the disagreeable odor and the still more disagreeable sense of strangulation; it unquestionably leaves the face free for operations; but it is a dangerous irritant to the intestine.

In view of these facts I cannot regard the rectal method in any way as a substitute for inhalation, but I shall still consider it a valuable addition to it. To avoid the odor and strangulation one can begin with the rectal administration of a small quantity (ʒ ss. to ʒ j.) and then continue with the inhaler; and in operations on the face this order can be reversed. So far as the quantity of ether is concerned, this can be reduced to a minimum by the use of Clover's or Ormsby's inhalers, and with Allis' inhaler the suffocation is very trifling.

I should add that Dr. Curtis and Dr. Jessup, at Chambers Street, and Dr. Spencer, Dr. Stephens, and Dr. Phelps, at the New York Hospital, have rendered me much assistance in recording these cases.

2 East Thirty-third Street,
April 26, 1884.

The Local Treatment of Nasal and Bronchial Catarrh.—At a recent meeting of the Académie de Médecine (*British Medical Journal*), M. Sandras objected to treating bronchitis, laryngitis, and colds by entrusting therapeutic agents to the stomach and intestinal canal. The drug thus administered is absorbed, passes into the circulation, and reaches the organs requiring treatment after a very roundabout journey, even if it do not lose its way there. M. Sandras recommends that the laryngeal and pulmonary mucous membranes be acted upon by direct inhalation of the vapor of turpentine and tar. The necessary apparatus consists of a bottle with a cork presenting two orifices. An india-rubber tube is passed through one of the orifices, with its end at a little distance above the level of the fluid in the bottle. Another tube is passed through the second orifice; this is in communication with the air, and is passed into the fluid. The bottle is half filled with a mixture of chloroform, ether, and turpentine, or with one hundred grammes of turpentine poured on to twenty grammes of Norwegian tar. The inhalations should take place three times a day, and be kept up for five minutes, at the rate of fifteen to twenty inspirations a minute. M. Sandras asserts that his treatment rarely fails to cure coughs, and all the unpleasant complications attending colds and bronchitis.

OPERATION FOR THE RELIEF OF BILIARY FISTULA RESULTING FROM GALL-STONE—REPORT OF A SUCCESSFUL CASE.[1]

By CHARLES W. ALLEN, M.D.,
NEW YORK.

The interest always attached to the escape of gall-stones through unusual or abnormal channels has during the past few years been much increased by the advances made in abdominal surgery, and especially in the surgery of the gall-bladder.

Cholecystotomy (χολὴ, gall; κύστις, bladder; and τομὴ, incision) has now a sufficient number of successful cases to its credit to take the place it deserves among the recognized surgical operations. We have learned that many cases can be saved by operation which otherwise would surely be lost.

The cases which formerly were left to nature and ended fatally are probably more numerous than is generally known, for we find that in the cases which result favorably the diagnosis is rarely made, and probably many fatal cases pass unrecognized or never find their way into the journals.

Although many cases have been reported where gall-stones of various sizes and in varying numbers have passed through fistulous openings in the abdominal walls, yet I consider the subject of sufficient interest and importance to the profession to add to the number, and in reporting a case to collect such others as have not previously been brought together.

The following case is reported with the kind permission and assistance of Dr. D. W. Bliss, of Washington, D. C., in whose practice it occurred and with whom I saw it on several occasions.

The patient was Mrs. A——, eighty-three years of age. Until the age of sixty she had enjoyed excellent health, when she was attacked with chronic articular rheumatism. A few years after this she sustained a severe injury to the left hip and thigh from a fall, which caused her to lead a very sedentary life on account of the pain and difficulty of locomotion. She was quite stout.

In September, 1877, she had a sudden attack of severe pain in the epigastrium, believed at the time to have been caused by the passage of a gall-stone. Intestinal obstruction covering a period of four days followed the attack. Relief was finally obtained by the introduction of a stomach-pump tube through the rectum into the colon and the injection of an emollient solution. Three weeks later there was a second attack, with symptoms of passage of gall-stones, relieved by hypodermic administration of morphia. Four weeks later a third attack was relieved in the same manner. Following this came an interval of three years of entire freedom from all symptoms of the trouble.

In March, 1880, she had a sudden and very severe attack of pain in the epigastrium and right hypochondrium, which she describes as a cramp, and says that the doctor who was called, in the absence from the city of the family physician, prescribed chloroform and ether internally, which was followed by nausea and severe retching. The next day a constant and severe pain localized itself in the right hypochondrium and continued with more or less severity for about three weeks, when Dr. Bliss was called, who found the following conditions: On a line with the umbilicus and fourteen centimetres to the right of it was a swelling covering an area seven or eight centimetres in diameter. There was great tenderness on pressure and pain on motion, and fluctuation revealed the existence of fluid. The bowels were obstinately constipated, the only relief being found in enemata.

The tumor was opened at once in its central and most prominent part, and about sixteen ounces of thick cream-colored pus, of a peculiar and extremely offensive odor, were discharged. Two or three days later five biliary calculi passed through the opening; they were dark brown in color, of the size of cherry-stones, triangular in shape, and all having the characteristic polished facets. They were composed of cholesterine, with an excess of bile-pigment. Calculi continued to be discharged at intervals with the pus, but the external opening tended to heal and became so contracted as to prevent the free passage of the discharge and calculi, and although the opening was enlarged several times a pus cavity formed below, the pus burrowing between the muscular layers.

An opening was made about ten centimetres below the original one, and pus having the same characteristics was freely poured out. I first saw the case with Dr. Bliss in August, 1881, when it was decided to enlarge the original opening, explore the cavity, remove any concretions that might be found, and endeavor by keeping the orifice well open and maintaining thorough drainage of the lower cavity to allow the wound to close.

This was done. After enlarging the original wound both Dr. Bliss and myself passed the finger well into the abdomen in the direction of the gall-bladder. The smooth walls of the cavity could be felt, but no calculi were found nor did the probe reveal any. Drainage-tubes were inserted into both upper and lower cavity and into the fistulous tract by which they communicated. The lower cavity healed completely. The upper orifice again became so contracted that an occasional stone would have to be extracted. In July, 1882, a red spot appeared at the free border of the ribs, and a spontaneous opening occurred eight centimetres above the original opening and a little to the inside of it. One stone came out with the discharge, making twenty-nine in all removed or discharged. Bile has been observed in the discharge on two or three occasions, but always in small quantity. There was none at first. There has never been any jaundice, and the stools have always been bile-stained so far as known.

Notwithstanding the age of the patient and her other infirmities she has remained in fairly good health, not being confined to her room; her appetite has been excellent. The bowels, at times constipated, are promptly relieved with a preparation of buckthorn bark.

Since January, 1882, there has existed a large abdominal hernia, measuring thirteen centimetres in diameter, occupying the situation of the original pus cavity, due to the destruction of the muscular walls of the abdomen in this situation.

The hernia is retained by an improvised pad and bandage, a truss which was made for the patient giving too much discomfort and interfering with the discharging sinuses. The last time I saw the case (May, 1883) the conditions were much the same as they had been six months previously. There were two discharging sinuses, one about eight centimetres above the other, the intervening space to the right being occupied by the hernia. To the left is a thickened mass of indurated tissue into which the sinuses run. The probe passes into the lower sinus seven centimetres, in an upward and inward direction. The orifice of the upper sinus will not admit the probe; its margins are red and tender, and attempts to pass a small-sized probe cause pain. Both sinuses constantly discharge a thin fetid ichor. Although this condition is not at all a common one, quite a number of cases are found recorded, some with an almost identical history.

Thudichum, in his work on gall-stones, published in 1863, brings together forty-five cases of biliary fistula; eleven collected by Soemmering in 1795, twenty by Fauconneau Dufesne in 1851, eight by himself, three by Walter, and several by Oppolzer.

Dr. G. W. H. Kemper, of Muncie, Ind., has kindly sent me his pamphlet, published in 1879, entitled "The Affections of the Gall-bladder Tending to Cutaneous Biliary Fistula," in which he gives eleven cases, including one of his own. Of these eight were female and three male. The youngest was forty-one, the oldest

[1] Read before the Manhattan Medical and Surgical Society, April 5, 1884.

sixty-nine years of age. In six the abscess opened spontaneously, one opened after the skin was blistered, two had the skin destroyed with Vienna paste, two were opened with the knife, one after Vienna paste had been applied. All the cases recovered but one, five of them within five months.

I have collected twenty-seven cases, mostly from reports in journals of recent date, but including a few not found in former collections. I have taken only such cases of gall-stone as have resulted in abdominal fistula or have had operations done for their relief. These, added to the cases previously collected and to the case I now report, make a total of eighty-four cases, each adding in some way to our knowledge of the condition and aiding us to devise means for its prevention or cure. In nine[1] of the twenty-seven cases the opening through the abdominal walls occurred spontaneously, but in four of them some cutting operation was subsequently done.

CASE I. resembles a case reported by Alexander Mackinder[2] and mentioned by Thudichum in the length of its fistulous tract, the formation of a sac in the iliac region, and the existence of a single stone. Both patients were females advanced in years. The patient, aged fifty-nine, had had periodical attacks of excruciating pain lasting several days, at which time a large flat tumor always appeared in the right side. A discharge of a greenish-yellow mass from the navel would accompany the cessation of pain. This discharge would increase during several days and then cease until a new attack. The patient died after three years of suffering

The fistulous tract ran from the umbilicus to near the right iliac crest, where it formed a small sac; from here it followed the colon ascendens to the border of the right lobe of the liver, thence along the border, ending in the cystic duct. It was surrounded throughout its whole course by very strong and apparently old adhesions. The gall-bladder was much thickened and contracted. It contained no bile, but a stone was found which measured two and one-fourth inches in its greatest circumference. The common duct was much contracted. In this case nature had made an unsuccessful attempt to expel the stone. The symptoms were severe, the condition was distressing, and the result unfortunate. It is in precisely this class of cases, where nature's efforts are alone unequal to the task, that the advanced surgery of to-day is called upon to give relief. We will bear this and similar cases in mind when we come to consider operative measures.

CASE II.—Female, aged twenty-eight. In May, 1871, had pain and swelling to the right of the umbilicus. In February, 1872, it reappeared an inch below the free border of the ribs and remained until seen by Dr. H., March 3d. He found a painless tumor reaching from the free border of the ribs to near the navel. It was considered an exudative deposit. May 3d two openings occurred in centre of tumor, discharging a little serous-like fluid and blood. They were joined by an incision, forming one large opening through which the finger passed into a cavity the size of a walnut. May 15th a stone passed through the opening. Fifteen others were discharged during the month. With the last stone came a flow of bile-colored fluid, which continued for several days. During this time the stools were clay-colored. The wound soon closed, and six days later the stool was again bile-stained.

CASE III.—Male, aged sixty-five. In August, 1877, he complained of pain over a circumscribed spot in right side. Had noticed pain in same spot on bending forward for past two years. Skin dusky, but no jaundice. September 8th an abscess burst one inch below and a little to the right of navel. Discharge was fetid and contained twenty or thirty friable gall-stones, from size of pin-head to that of large pea, and one weighing one drachm. September 14th a dozen calculi were loosened with probe and extracted. Probe passed in a distance of four inches. After probing the discharge contained bile. A fistula remained, but health improved and symptoms disappeared.

CASE IV.—Female, aged sixty-three. Had had repeated attacks of hepatic colic. Several fistulous openings formed in the abdominal parieties. One of these was dilated by Dr. Auger and about a hundred small gall-stones extracted. The patient's health improved after the operation.

CASE V.—The protective agency of the peritoneal adhesions which form around these fistulous tracts, and the care which should be exercised in exploration and operation not to injure them, is exceedingly well illustrated in this case, related to Prof. Flint by an eminent surgeon. A large number of stones had passed through a spontaneous opening which would admit the finger into the gall-bladder. It was ascertained in this way that all the stones had escaped. Another surgeon wishing to verify this fact made an exploration, but upon withdrawing the finger a loop of intestine protruded, and fatal peritonitis supervened.

CASE VI.—Female, aged fifty-six; first seen in October, 1879. Two months previously she had noticed a swelling in the right side of the abdomen, which was poulticed and broke in September. The following day four gall-stones came away. Her only previous symptoms had been an attack of acute pain in the hepatic region in 1873, and dyspeptic symptoms for past five years. The sinus opened five inches below the navel and a probe could be passed six or seven inches upward and to the right through inflammatory thickening. In February Mr. Lister and Dr. Yeo slit up this sinus and dislodged twenty-five stones. Success was complete. No gall-stones were subsequently discharged and the secretion ceased.

CASE VII. is noticeable on account of the age of the patient, who was a female aged twenty-one, first seen July, 1880. About three years before this she had a severe pain in the right side, again one year later, and a third attack three months later. There was no jaundice. A tumor now appeared on the right side below the free border of the ribs. At the end of six months the skin became red; tumor was poulticed and discharged about four ounces of mucoid material through several pin-head openings, all within the diameter of an inch. These, with the exception of the centre one, subsequently closed. When first seen the fistula had existed for a year, and there had been one attack of pain similar to those before its existence. In July a stone was detected in probing, and the sinus was slit up, and three stones extracted. In November the sinus had entirely closed.

CASE VIII.—Female, age not given. First seen in November, 1881. There had been soreness and enlargement at the umbilicus for some time. Three months previously she had had an attack of "inflammation." The diagnosis was not established. The swelling was poulticed, and broke at the umbilicus two weeks after the doctor first saw her, discharging twelve gall-stones, ranging in size from a pea to a chestnut. At date of report patient was in better condition than she had been for many years. In commenting upon the case the doctor says that authors consider the prognosis in these cases grave. In this I cannot agree with him, believing that the prognosis is good as regards life, and fair as regards recovery from urgent symptoms. I believe authors at the present day so regard it.

CASE IX.—Female, aged seventy-seven. Had, for ten years, been troubled with hepatic colic at intervals of a few weeks. Once, in 1878, it was attended with jaundice. There had been no colic for three years prior

[1] I. M'Pherson: American Journal of the Medical Sciences, April, 1871. II. Hertz: Berlin Klin. Wochenschr., 1873. III. Cookson: Lancet, London, January 5, 1878. IV. Auger: La France Medicale, April 16, 1879. V. Flint: Clinical Medicine, New York, 1879. VI. Yeo: Lancet, London, August 7, 1880. VII. Calhoun: THE MEDICAL RECORD, New York, January 29, 1881. VIII. Humfreyville: St. Louis Medical and Surgical Journal, February, 1882. IX. Booth: Lancet, London, March 11, 1882.

[2] British Medical Journal, 1857.

to June, 1881, but she had experienced slight pain at times in the right hypochondrium. Swelling and redness now appeared, and an abscess burst, with a scanty yellow discharge. In December the patient noticed a hard substance at orifice of opening, and removed a gall-stone with the aid of a hair-pin. Several stones subsequently passed.

The explanation of the sudden cessation of attacks of colic in these cases, where no stones are found in the dejections to account for their passage, is to be found in the fact of their making their way through the walls of the duct, or bladder itself, and beginning the process of abscess or sinus formation. In this case the stools were examined but no stones ever found.

In seven of the cases, besides the one I have reported, the abscess or tumor was opened—in five with the knife, and in two with cauteries.

CASE X.[1]—F——, advanced in years. Had had constant pain and discomfort in the epigastric and hypochondriac regions for several weeks, attended with vomiting. An abscess was opened four inches below the last rib, and three or four gall-stones were discharged. They were of a greenish-brown color, hard, angular, and highly polished. Eighteen or twenty more were discharged during the next few weeks, and the case ended in full recovery, there having been no jaundice and no urgent symptoms.

CASE XI.[2]—Male, sixty years of age. Good health until 1859, when he had gall-stone colic without jaundice. In May, 1867, had severe pain and vomiting suddenly after dinner one day, and was sick for several weeks; pain continuing at lower border of the liver. In June an abscess was opened and a great number of stones were discharged, together with fetid green pus. In October a sinus existed which discharged fluid like white of egg. Probe passed two inches. The sinus finally closed. A year later there were signs of adhesion of gut to under surface of liver.

CASE XII.[3]—Female, fifty-three years of age; was admitted to Guy's Hospital in July, 1878. She had first noticed pain in the right side five years before. A tumor soon made its appearance, and three years later it was opened. The next year the tumor or abscess formed again, and two fistulous openings had since existed. The sinus was slit up between the two openings joining them. The discharge which at first was pus alone, subsequently contained some bile.

On October 8th, Dr. Bryant explored the wound under chloroform, and discovered a biliary calculus two inches from the surface. He enlarged the sinus in the direction of the gall-bladder, and extracted a stone one inch in length by one-half inch in breadth. Patient's health remained good, and parts were healed in about four months.

This case has been quoted and referred to by authors as a case of cholecystotomy. I am not aware that Dr. Bryant has so named it. I prefer to class it with the cases in which operation has been done upon the sinus resulting from the escape of the stone through the bladder walls. From the report of the case I do not understand it to be a case of cholecystotomy proper.

CASE XIII.[4]—Female, seventy-four years of age. In June, 1870, a tumor appeared resembling induration of the liver. Diagnosis not made. In July it was explored with a hypodermic needle, and opened four inches below and to the right of the umbilicus. Six ounces of pus escaped, and two or three days later a gall-stone. The opening soon closed and the tumor reappeared, and was again opened with the lancet. The same quantity of pus and another gall-stone escaped. No bile was noticed. By the middle of August patient had recovered.

Dr. Hughes asks, "Now, did I open the distended gall-bladder when I thought I was opening an abscess of the liver?"

I should answer "No." Nor do I consider that he thought rightly when he thought he was opening an abscess of the liver. We know that gall-stones can escape from the gall-bladder into the substance of the liver, when adhesions have formed between these organs, and produce an abscess in it. Such instances are, however, extremely rare. Dr. Dundas had a case where an impacted stone caused abscess of the liver.

Dr. Alfred North, of Waterbury Conn., on September 8, 1881, aspirated a cyst of the liver caused by impaction of a gall-stone in the common duct, and drew off five pints of coffee-ground fluid. The patient was a male, aged forty-five, who had previously been in good health, with the exception of seven or eight bilious attacks. Death occurred on second day. It is unfortunate that we do not possess more details of the case. Considering, however, that there must have been an autopsy to determine the presence of the impacted stone, I have no doubt the cyst was plainly made out as one of the liver.

Trousseau[1] gives two cases in which caustics were used; in one the orifice of a fistula appeared at the point cauterized, and twelve gall-stones were discharged. Both cases recovered, one completely.

He also gives a case of a male, aged sixty, in which the abscess was opened.

CASE XVII.[2] is an interesting and instructive one, in which an operation was begun and abandoned.

Dr. Williams presented to the Society the specimen of the gall-bladder, ducts, portion of the duodenum, and abdominal walls adherent to fundus of bladder. A fistulous opening existed between the cavity of the bladder and abdominal wall. The bladder contained twelve calculi the size of cherry-stones. The common duct was greatly dilated to within a few lines of its opening into the duodenum, and within it was enclosed a calculus much larger than those in the bladder. It could be freely moved backward along the dilated tube, but when pushed forward became impacted in the narrow portion, and occluded it.

The case was one of a female, aged thirty-five, a native of Madeira. In January, 1879, she had a severe attack of colic, followed in a week by a second, still more severe. She was much jaundiced, stools clay-colored. Urine loaded with bile. On the tenth day a tumor was detected three inches to the right of the median line, extending from the border of the liver to a little below umbilicus.

The tumor was aspirated February 22d, and sixteen ounces of very fetid, thick bile was drawn off, relieving pain at once. Little constitutional disturbance followed. The following day a large stool was passed, the first half of which was clay-colored, and the last half tinged with bile, the dividing line being very abrupt.

The diagnosis was made of calculus in common duct, which had in some way become dislodged, permitting temporary discharge of bile. An attempt was made with potassa fusa to produce adhesions between bladder and abdominal walls; but as no fluid could be detected by the hypodermic needle, after a few days, through the issue, the attempt was abandoned and the issue allowed to heal. Patient convalesced, but pain and great distention of bladder came on after a ride in a horse-car. Twelve ounces of thick bile were drawn off. No stone could be detected by probe passed through the aspirator canula. No relief was obtained, and the stools remained clay-colored. A few hours after aspirating an opening formed, just to the right of the navel, discharging bile mixed with a little pus. After two weeks a probe was passed from the spontaneous opening into the issue made in February. It is probable that the bladder adhered to the abdomen at this point. June 16th, an incision was

[1] Feldham: Lancet, London, January 19, 1878.
[2] Habershon: Ibid., November 15, 1879.
[3] Bryant: Medical Times and Gazette, December 14, 1878, and May 31, 1879.
[4] Hughes: Lancet and Clinic, Cincinnati, O. 1879.

[1] Clinical Medicine.
[2] Campbell: Annals of the Anatomical and Surgical Society. Brooklyn, 1879.

made through the eschar into the sinus, but patient was so weak and bore the ether so badly that nothing further was done. It was the intention to dilate gradually the passage into the bladder and reach the stone.

Death took place suddenly the next day, with violent pain in the region of the heart.

Heart was found flabby, but otherwise normal.

Dr. Martin Burke[1] reports two interesting cases operated upon in his own practice. One was a male, aged eighteen; the other a female of fifty years of age. In the second case fifty gall-stones were discharged. Both made full recoveries. This brings us to the consideration of cholecystotomy, an operation which seems to have suggested itself to the minds of surgeons many years ago, and to have been carried out in several cases of which we have some record. Schurigius, in his "Lithologia," says that J. Fabricius removed a biliary concretion from a living man by cutting. Petit seems to have suggested it in 1733. In his "Maladies Chirurgicales," 1790, he compares retention of urine and stone in the bladder with retention of bile and biliary calculi, and suggests that as operation does so well in the one case it should in the other. He gives four cases which had been operated upon. They were supposed to be abscesses, and consequently do not deserve a place with the cholecystotomies of to-day. He began an operation himself and abandoned it.

His own and another case alone recovered; his with a fistulous opening through the abdomen, through which a calculus subsequently passed. He refers to the deliberate operation on the bladder, where the diagnosis is made. He says: "Before beginning puncture or opening of the gall-bladder, you must be assured that it is adherent to the integuments, and know the situation of the adhesions," the idea being to operate where nature has paved the way. Thudichum said in 1859, in a paper read before the Medical Society of London, that gall-stones might be removed from the gall-bladder through the abdominal walls, either in a direct manner or by the formation of a fistula. The priority of operation in our times has been a matter of some dispute. Professor Bartholow claims to have been the first to puncture and explore the gall-bladder.

His case was one of hydatid cyst of the liver, in a man aged forty-five, reported in the *Cincinnati Clinic*, April, 1877. He aspirated the distended gall-bladder as well as the cyst. He found that he could pass a long probe through a canula fixed in the bladder, and explore it and the cystic duct. Patient died about four months after he first saw him.

As this was not a case of calculus, it is not included in this collection. Dr. Kemper claims priority for Professor Bobbs, of Indianapolis, whose case was published in the "Transactions of the Indiana State Medical Society, 1868."

He reiterates this claim in the *Cincinnati Lancet and Clinic* in 1879, and says that if it is not the first case, it is the first successful one on record. He operated in June, 1867, on a woman of thirty. Tumor had been gradually enlarging for four years. The diagnosis was not made. When the tumor was cut down upon, a pedicle was looked for to tie, but none being found, the bladder was incised and several solid bodies of bullet size were discharged, with a quantity of limpid fluid. The bodies were not stated to have been gall-stones, but presumably were. The incision in the walls of the bladder were stitched, the external wound closed, and recovery was rapid. Althongh not a case deliberately undertaken for the relief of gall-stones, I believe it deserves a place among the operations for the relief of this condition.

I have found reported since 1868 eight cases of cholecystotomy and one case of extirpation of the gall-bladder for the relief of stone. Of these cases four were referred to by Dr. Kemper in his pamphlet, but not included in his eleven cases. I have therefore added them here to give them a little more in detail, and to make the collection as complete as possible for study.

Mr. George Brown's[1] case is one of a female, forty-five years of age (first seen in March, 1877), who had suffered from biliousness, etc., for six years.

In February, 1877, after exertion, a painful tumor appeared in her side. Dr. B—— diagnosed distended gall-bladder, and aspirated January 9, 1878, drawing off six ounces of yellow non-fetid pus. Patient remained weak, and tumor was not decreased in size.

On January 22d he operated, cutting down and entering the peritoneal cavity. He then explored with the finger and tore down some adhesions on the side toward the tumor, but did not open tumor. The wound in the abdomen was sewed up. The next day there was a spontaneous discharge of bile-stained fluid. A fistula was formed which continued to discharge a small quantity of glycerine-like fluid until the middle of May, but by the end of May the fistula had healed, and the general condition remained good. The cause of the trouble was considered to be impaction of stone in the cystic duct.

If the tumor had continued to enlarge, he believes that the gall-bladder would probably have ruptured into the peritoneal cavity, causing fatal peritonitis.

If Mr. Brown was following the advice of Trousseau (method of Bégin), endeavoring to produce peritoneal adhesions by cutting through to the tumor, but not making an opening before adhesions had formed, he certainly does not deserve the less credit because the tumor ruptured before the usual twenty-four hours had expired. This, I believe, he has not made clear in his paper.

Dr. J. Marion Sims[2] operated in 1878 (March) on an American lady, in Paris, forty-five years of age. In November of the preceding year she had had an attack of jaundice. In January, 1878, a tumor was discovered. There was intense itching of the skin. In March the diagnosis of hydatid cyst or dropsy of the gall-bladder was made, and the tumor was aspirated as a diagnostic measure. Thirty-two ounces of a dark fluid were withdrawn. It contained no bile and no hydatid hooks.

In April the symptoms became so severe that it was decided to make a permanent fistula through the abdominal walls, following the process of nature in similar cases where recovery had taken place. Twenty-four ounces of dark-brown fluid were drawn out with a Dieulafoy's aspirator. The tumor was cut down upon and found to be the gall-bladder, and an incision, two inches in length, was made into it with scissors. Sixty gall-stones were removed. A portion of the hypertrophied wall of the bladder was amputated and the edges stitched to the wound. This amputation of a portion of the gall-bladder Sims acknowledges to have been a mistake, as it gives rise to considerable hemorrhage. The operation lasted an hour and a quarter.

Death occurred on the eighth day, from hemorrhage of the stomach (black vomit). At autopsy the abdominal incision was found perfectly united. Sixteen gall-stones were found, which had escaped notice at operation from having been encysted. There was no peritonitis. Death was due to passive transudation of blood from the mucous surfaces, due to the poisonous effects of the biliary salts upon the blood.

Dr. Sims believed this operation unique and considered it justifiable, death being absolutely certain in all cases where the gall-ducts are mechanically obstructed unless an outlet be obtained, either into the alimentary canal or by a fistulous opening externally through the abdominal wall. Dr. Sims claims that the operation (*per se*) was a success; that its fatal issue depended on delay in operating.

In another case he says he would not delay operation after the diagnosis was established. It should be done

[1] The Medical Record, New York, November 10, 1883.

[1] British Medical Journal, December 21, 1878. [2] Ibid., June 8, 1878.

before the bile acids have affected the blood to such an extent.

Dr. Keen,[1] of Philadelphia, in November, 1878, performed cholecystotomy on a woman aged sixty years for tumor of the gall-bladder, and discharged a mass and fluid amounting to twenty ounces. Death took place on the third day. As far as Dr. Keen knew at the time his was the second operation of the kind, that of Petit being the first. He considers the operation justifiable in view of the severity of the symptoms and the certainty of a speedy fatal issue if left to itself. He intended to carry out the proposition made by Dr. Hanfield Jones,[2] to open the abdomen and by manipulation push into the intestine the stone obstructing the duct without opening the gall-bladder. He attributes death in this case to first, shock; second, secondary hemorrhage; third, debilitated condition of patient and age. He considers the dangers of permanent fistula not greater than those of continued obstruction.

A case of cholecystotomy for dropsy of the gall-bladder, due to impaction of a gall-stone, is reported by Lawson Tait.[3] The patient was a female, aged eighteen, married, who in 1878 had suffered from spasmodic pains in the right side, aggravated by walking and lifting. In September a swelling appeared and increased slowly, and patient suffered incessant headache, sickness, and constipation. There was a heart-shaped elastic tumor without fluctuation, tender to the touch, over the region of the right kidney. No diagnosis was attempted.

On August 23d the abdomen was opened in the median line to the extent of four inches, and the tumor was found to be the distended gall-bladder. It contained two large gall-stones, one loose, and one impacted in the entrance to the duct. This one was removed with difficulty. The wound in the bladder was stitched to the upper edge of the abdominal incision by continuous suture, leaving free opening into the bladder. The abdomen was closed in the usual way. The operation was done antiseptically under ether. There was a flow of bile from the wound until September 3d. On September 9th healing was complete, and on September 30th health of patient was restored.

Dr. Tait gives Hanfield Jones the merit of first suggesting the operation and extending it, and Dr. Sims the credit of being the first to carry out the plan. He claimed this as the first successful case on record.

Since this case was reported he has performed the operation twice successfully. What he calls "a third successful case of cholecystotomy"[4] was performed on a female aged twenty-eight, seen first December 20, 1881. Diagnosis of floating kidney had been made.

Patient had been under the care of Dr. Lycett since March, 1878, when he considered it a case of gall-stone. Dr. Tait's diagnosis was "dilatation of gall-bladder from occlusion of duct by calculus."

June 15, 1882, he opened the abdomen by a vertical incision over tumor, found gall-bladder distended, aspirated, removing a pint of thick glairy mucus. Upon laying open bladder about eighty gall-stones were removed with curette. The largest weighed fifteen grains. The aperture of the bladder was carefully stitched to the abdominal wall as in previous case, but a drainage-tube was left in the bladder. Recovery was uninterrupted. Stitches were removed on eighth day, drainage-tube on twentieth, a small sinus was left, which discharged clear mucus until August 5th, when something seemed to give way and bile flowed freely. This Dr. Tait regards as indicating that the occlusion of the duct had been overcome, and considers that the complete functions of the organ may be re-established. To accomplish this he proposed to secure closure of the fistula by an operation.

A precisely similar operation was performed by the same operator[1] October 13, 1882. Mrs. B——, aged thirty-seven, had occasionally presented a tumor in the region of the gall-bladder. She had suffered at intervals from severe attacks of colic. The diagnosis of distended gall-bladder was clear. Sixteen gall-stones were removed, weighing from seven to thirty-five grains. Drainage-tube was removed on third day. October 24th, stitches all removed. At date of report wound was almost healed.

Dr. Whittaker,[2] of Cincinnati, O., publishes the case of a male, aged seventy-three, who had symptoms of total occlusion of the common duct, with jaundice, etc. On April 19, 1882, he fixed the gall-bladder by pressure from below and introduced an aspirator needle, withdrawing some bile. The following day he introduced the longest and finest of the Dieulafoy's aspirating needles, and struck a stone four and three-fourths inches from the surface in the direction of the common duct.

On May 3d Dr. Ransohoff operated on the case for him, removing two large stones weighing 138 and 162 grains respectively, one being firmly wedged into the cystic duct. There were also three small stones. Death occurred on following day.

Dr. Whittaker claims this method of exploration as his own, and considers it the simplest, safest, and surest method of detecting stones in the gall-bladder or ducts, being easy of peformance and almost painless. It certainly was efficacious in the case reported, and is a method worthy of trial. It has recently been successfully employed in exploring the pelvis of the kidney for calculus. In one case in this city a large stone was detected, and the kidney extirpated. The exploring needle surely offers at present the best means of making a positive diagnosis. Whether it is entirely devoid of danger future experience will best prove. By its means many cases of impacted stone which now pass unrecognized might be discovered and operative measures instituted.

Blodgett[3] claims precedence of Sims in operating in this country. In February, 1878, he cut down upon but did not open the gall-bladder. On post-mortem a cancer of the pancreas, etc., was found.

This I cannot consider a case of cholecystotomy, and it would not in any event be included in the collection, not having been performed for the relief of calculus. And had it been a case, those of Bobbs, Bartholow, and Brown precede it.

Langenbach advocates the extirpation of the gall-bladder in cholelithiasis as well as in other pathological processes. He publishes[4] a case in which he successfully performed it for the relief of chronic cholelithiasis. The patient was a male aged forty-three, who had suffered for sixteen years. The operation was done on July 15, 1882, and is of such interest that I give the different steps in it, as described by himself: A transverse cut is made corresponding to the anterior surface of the liver, near its lower border; then a longitudinal incision following the outer border of the rectus muscle joins the first so as to form a T. Each incision is from ten to fifteen centimetres long. This exposes the globe of the gall-bladder. The colon and small intestines are pushed downward behind the abdominal wall by means of a large flat sponge. An assistant raises the right lobe of the liver, exposing the hepato-duodenal ligament. This is caught by the fingers of the left hand. In this duplicature run the large gall-ducts, and toward the median line run the portal vessels. In order to isolate the ductus-cysticus, which lies farthest to the right, expose the gall-bladder up to it by separation of such peritoneal ligaments as are present with a few strokes of the knife. A silk ligature is applied, and firmly tied about the cystic-duct one or two centimetres from the neck of the bladder. The desire being to cause permanent closure of the duct, catgut is avoided.

[1] American Journal Medical Sciences, January and April, 1879.
[2] Medical Times and Gazette, 1878, p. 247.
[3] London Lancet, November 15, 1879.
[4] British Medical Journal, November 18, 1882.

[1] Tait: British Medical Journal, November 18, 1882.
[2] The Medical Record, New York, May 27, 1882.
[3] Homœopathic Medical Times.
[4] Berliner Klin. Wochens., 1882, xix.

The bladder may now be aspirated if desired. (This was done in case reported.) The gall-bladder is easily separated by cutting through the loose areolar tissue which holds it down in its fissure, the peritoneal coat being slit up on a line of the circumference of the gall-bladder. The separation is accomplished partly by traction and partly by cutting with knife or scissors. The cystic duct is now cut on the side of the ligature nearest the bladder, care being taken not to permit any escape of its contents into the peritoneal cavity. Care must be taken not to injure the liver-tissue, which is so vascular. As a rule, vessels requiring ligature are encountered. The abdominal wound is closed by sutures in the usual way.

Upon opening the gall-bladder in this case only two cholesterine stones of the size of millet grains were found, and it was considered that repeated purging had contributed to a thorough discharge of stones.

The walls of the bladder were markedly thickened, showing that there had been previous inflammation. He considers that the trouble is kept up by the constant painful, though normal, passage of the concretions, which are constantly being reproduced. He justifies the operation by the fact that the gall-bladder is not an absolutely essential organ in the economy. That in certain animals it is found wanting (horse, elephant, etc.). That in man it is often found at autopsy filled with stones and pus, or in a cystic condition, not performing its functions for a long time. Reviewing these cases, we are impressed with the singularity of their early history and onset, and with the striking resemblance which some of them bear to cases related by Thudichum and others.

Notwithstanding this fact, which would tend to assist in the diagnosis, we find that this is rarely made, in the twenty-seven cases not having been established more than six or seven times. The average age of these cases we find to be fifty and one-half years; the oldest eighty-three years, the youngest eighteen years. The ages of three cases are not given, one is stated to have been advanced. These would have brought up the average, for we find only three cases below the age of thirty-five years. Fiedler gives two hundred and seventy cases of gall-stone, with three only under twenty years of age.

As regards sex, twenty were females, six males, and one not given. The reason for the frequent occurrence in the female is simply because gall-stones are observed more frequently in this sex, and this probably by reason of their more sedentary lives, although some authors deny this influence. Brinton states that gall-stones are found four times as frequently in women as in men, and gives the average age at fifty-three and one-third years. Hein, from an analysis of six hundred and twenty cases, gives the proportion as two to three, Fiedler as one to two and two-fifths. Of the cases resulting in spontaneous fistula seven recovered, two died—one only after three years, and one from surgical interference.

In the eight cases where the abscess was opened by the surgeon seven recovered, and the result of one is not given. There are eight cholecystotomies with five recoveries and three deaths. The one extirpation recovered. It is therefore seen that the condition does not have so bad a prognosis, no matter whether nature or the surgeon has the case in charge; but we must not lose sight of the fact that many of the operated cases would have done badly if left to nature, and that surgical interference might have resulted in harm to others. We meet with two classes of cases—the first where there is distended bladder with symptoms of occlusion of the duct from impacted stone, the second where the impacted stone has passed by ulceration through the duct or bladder wall, or the contents of the bladder have escaped into the peritoneal cavity. In either case we will have a recent or remote history of colicky pains, preceded probably by rigors and shivering, and attended with local pain and tenderness. There will probably also be a history of digestive derangement. During an attack of the pain, the pulse will be slow, showing it not to be of gastric origin. The colic ceases after a time, and is replaced by a stinging, burning, or pressing pain, or feeling of fulness. If the colic has ceased suddenly the stone has probably fallen back from the neck of the bladder, and may not have caused another attack for some time, or the pain may have ceased some time after the stone became fixed in the cystic duct. Having the history and other signs of biliary colic to guide us, we bring to our aid palpation, percussion, and the exploring needle.

In the first class of cases we find that where the patient is in good condition and of a suitable age, operation does well, and is, in many cases, the patient's only chance. We have now a sufficient number of successes in cholecystotomy, to put it on a firm basis, and expect much from it in the future. That this statement can be so positively made I believe to be due, in a very great measure, to the work in this field of the late Dr. Sims. His was not the first case operated upon, nor did recovery take place, still he had with characteristic boldness and ingenuity applied sound surgical principles to the problem, which, as far as he knew, was being solved for the first time. He then brought it before the profession in his peculiarly impressive manner, and caused it to be recognized as a scientific and proper operation.

In the second class of cases we have an entirely different condition. Here the bladder contents have wholly or in part escaped, and the tumor which presents itself is due to the inflammatory thickening and suppuration attending the formation of the fistula. The opening may have been effected by a process of ulceration, or the bladder may have ruptured without previous ulceration. In the former case the process has excited adhesive peritonitis, and when the opening occurs the general peritoneal cavity is shut off by adhesions. In the latter case mechanical violence is usually the cause, but Dr. Ciccone related a case in *L'Independente*, in 1876, in which it occurred without this factor.

"Patient, aged fifty-one years, was seized with pain in abdomen two hours after a meal. Diagnosis: Rupture of liver. Autopsy: Gall-bladder detached from its fossa, except by a thread of peritoneum. A recent laceration, without any sign of ulceration, was plainly made out in the bladder-walls."

It is difficult to conceive of a case of sudden rupture in which death would not take place suddenly from shock, or where a general peritonitis would not prove rapidly fatal. The opening may occur at the point where the stone is making pressure, or the bladder may become hypertrophied from the continued efforts at expulsion. Catarrhal inflammation may be induced, and adhesive peritonitis set up between the fundus and abdominal parietes, where they are in relation just below the tenth costal cartilage, or a long and circuitous tract may be formed, opening at a distance from the bladder.

In some of the cases the opening in the bladder or duct appears to have completely closed before the opening in the abdominal wall is accomplished. In others the opening appears to act in a valve-like manner, permitting an intermittent escape of the bladder contents.

In many of these cases the only surgical assistance necessary will be the opening of the abscess and establishment of the external opening of the fistula. When all the stones have passed, we expect the fistula to heal or to discharge very slightly. In other cases operation becomes necessary, when the sinus formation is doing damage and does not quickly reach the surface.

If adhesions have formed, they should be carefully protected in operation, the incision being made where they point the way. The operation should be undertaken early, while the patient's condition is still good, and before extensive damage has been done by the sinus formation and burrowing of pus. Cholecystotomy ought to be done in suitable cases, where the bladder still contains concretions and the patient's age and condition and the urgency of the symptoms warrant the attempt.

101 E. Fifty-ninth Street.

SOME OBSERVATIONS UPON THE FEEDING OF INFANTS.

By CLEMENT CLEVELAND, M.D.,

NEW YORK.

In this paper I present merely the result of personal experience, not as anything new, but with the hope of starting a discussion which will bring out some points worthy of record.

The best food for the infant is unquestionably woman's milk.

If a mother cannot nurse her child, the milk of another woman, other things being equal, comes next in order.

The selection of a wet-nurse involves a great many moral as well as physical questions, and they must be all conscientiously considered. The responsibility usually and naturally rests with the physician. For him the task is certainly a difficult and often a thankless one. I say a difficult one, because it is to be supposed he undertakes the duty in the same spirit in which he would seek a nurse for his own child, and that the choice rests upon satisfying the requirements he would make under such circumstances. It is a serious duty, and I believe every man before accepting a wet-nurse should ask himself this question, "Would I have this woman nurse my own child?" If this were always done, I believe fewer wet-nurses would be employed.

The wet-nurse must be young—under thirty—healthy, neat, and good-tempered; must have good breasts and nipples, and the quality and quantity of her milk must be up to the standard. There must be no great difference between the age of the milk and the age of the child to be nursed. On this point authorities seem to be at variance, making it all the way from six weeks to six months. Most writers of to-day, however, agree upon six weeks as the time beyond which it is not wise to go.

The child of the wet-nurse must be seen, and found healthy and well nourished.

The possibility of some constitutional taint must be kept constantly in mind.

A primipara, whose child has died, I believe should be preferred. She has learned no tricks, has no preconceived notions, and the more readily falls into the ways of the family to which she goes. She is not constantly worrying about and yearning for her own child, and will the more tenderly care for her foster-child.

Most of the women who present themselves as wet-nurses are poorly fitted to perform the duty. I believe, however, by patient hunting a physically satisfactory nurse can always be found; but then she may not, and it is rare that she does, possess the other qualifications which are next in importance. These do not appear on the surface, and are not learned except by trial. The agony of that trial is very likely to induce a mother never to make a second.

The woman drinks or quarrels with the other servants, is a mischief-maker, or exhibits some other fiendish qualities. If the baby is thriving, she has the family in her power and soon finds it out. She knows a great deal of allowance will be made for baby's sake.

When allowed to go out she will stay far beyond the time for nursing.

If the child cries she gives it the breast at any and all times, in spite of strict commands to do so only after stated intervals.

More than likely she comes from a life of hardship and toil to one of luxury and idleness. She naturally eats anything and everything that tastes good, never having known what an indigestion is. She takes little or no exercise. Frequently all this is the fault of the child's mother, who, forgetting the changed life of the woman, gives her the richest food. She grows ill, her milk fails, and a change has to be made. This adds to the experience of the young mother, but to her burden also, and is hard on the baby.

If the woman is married the husband must not be overlooked. He is a very important factor in the question. His home is possibly broken up and he demoralized. If she is fond of him, all this does not add to her peace of mind. To retain his affection or to keep him from bad company and drink she will often give up her place. For the sake of baby the husband must be taken good care of. Notwithstanding the moral objections usually raised, I am inclined to think the young unmarried woman makes the best wet-nurse. She can be more easily controlled. She is often "more sinned against than sinning."

If the nurse is allowed to visit her husband or friends, it is impossible to watch her movements. She may go to any infected tenement and bring home disease. I believe she should never be allowed to visit friends. Under careful restrictions they might be allowed to come to her occasionally: the husband, for instance, once a week. For baby's sake, however, some indulgence may have to be given.

It is seldom that the first nurse suits. Often a large number have to be tried. I know of an instance where a change had to be made thirteen times in two weeks. This is not particularly good for the baby.

If she hears that her child is seriously ill, though she may be with a family in the country, following her motherly instincts she leaves at once. You cannot blame her. All the same it is hard on the baby.

If she were a mere machine all might go well. As it is, the mother, or some one engaged for the purpose, must keep constant watch upon her. It is a slave's life for the mother. This catalogue of woes might be extended indefinitely. I do not think I have overstated the matter. It is the sum of the experience of the majority of people who have employed wet-nurses.

Cow's milk is the most available, and, next to woman's milk, really the best food for the infant. That can be laid down as an axiom. Good milk it is now not difficult to procure. It does not pay to adulterate as formerly. People are too keenly alive to the necessity of having it pure. In consequence, within a few years a large number of establishments have sprung up in this city which can be depended upon to supply a reliable article. Their milk is uniformly up to the standard.

The milk of many cows is to be preferred to that of one. It is more likely to continue uniform. Undiluted cow's milk is not readily digested by the infant. It is too rich in fat and caseine. During the early months the power of digesting fat is very deficient. The caseine of woman's milk curdles into delicate flakes, that of cow's milk into much larger. Fortunately these are difficulties that can be overcome to some extent.

A milk should be selected, if possible, that is not rich in cream. The morning's milk contains less than evening's. On boiling, much of the cream comes to the surface in the form of scum, and is to be removed by straining.

Water added to the milk helps the digestion of both fat and caseine. It can be helped also by gelatine, barley, or oatmeal water; or by some alkali, as lime-water, bicarbonate of soda, or potash.

The standard proportion of one part of milk to two of water is found to suit well the majority of children. I prefer, however, for greater caution, to begin with one part to three, and work rapidly up to one part to two if digestion continues good. I have found it an advantage to gradually increase the strength from month to month, and have been in the habit of following a formula of the late Dr. Buckingham, of Boston, modifying it as each case might require. He takes eight parts as a constant proportion for milk, and beginning with twenty-four parts for water gradually decreases as follows: First two weeks, 8 parts of milk to 24 of water; second two weeks, 8 to 20; second month, 8 to 16; third month, 8

to 14; fourth month, 8 to 12; fifth month, 8 to 10; sixth month, 8 to 8; seventh month, 8 to 6; eighth month, 8 to 4; ninth month, 8 to 2; tenth month, pure milk.

Some children do better with a little water with the milk, even after the twelfth month. This formula makes a very convenient guide, and is meant to be considered such, rather than as a rule to be followed in all cases. I have found it so admirable a guide, however, that it has become almost a rule with me. Both the milk and the water should be boiled. The dilution should be slightly sweetened with pure brown sugar or milk-sugar, and a little salt added.

It is a good plan to prepare with morning's milk the whole amount to be used in twenty-four hours; pour it into a large bottle—a preserve jar answers the purpose—and set it away in the refrigerator. where it will keep perfectly. Where it is possible, a small nursery refrigerator should be used for this purpose alone. In travelling it is indispensable.

Cow's milk is slightly acid or neutral. To render it perfectly digestible it is sometimes necessary to make it slightly alkaline. This helps the digestion of the caseine by causing its distribution into finer flakes. Whenever undigested flakes of caseine appear in the passages I add to the dilution one-half to one grain of bicarbonate of soda for the amount to be given at each feeding. This, in most cases, will correct the difficulty. Should it not, I try barley-water, made by boiling the pearl barley for hours, using a heaping teaspoonful of the barley and a saltspoonful of salt to each ten ounces of water. This is to be used in the same proportions as in the formula above. Where there is constipation, more or less obstinate, I have found Mellin's and Horlick's food very satisfactory in removing the difficulty. It is very rare that the milk is not made perfectly digestible by one or the other of these agents.

The amount of food to be given varies from month to month. The stomach of the child at birth holds about four ounces. After the second month it will hold six. The capacity gradually increases. By the fifth or sixth month eight to ten ounces will be required. The amount should be a little increased from time to time, and the quantity the child takes is a fairly good guide as to the amount it needs. Unless it is urged, it rarely takes more than it has room for.

For the first month the child should be fed every two hours; never oftener than that. It takes fully two hours for milk to digest. This rule, therefore, should be rigidly followed.

During the early months the child may cry a great deal, apparently from hunger. It is more likely to be due to distress from its food, which may need some slight correction, though the passages be normal. The monthly nurse, who knows all about it, insists that it is due to hunger, and gives the bottle every hour and a half, or oftener. The child is quieted for the time possibly, and the nurse is confirmed in her opinion, which no argument can change. It is, however, only storing up trouble in the shape of fixed indigestion. Moreover, these little creatures form habits very quickly, and if the exact routine to which they are accustomed is not punctiliously carried out, they notify us at once, in their own peculiar way. From habit their little stomachs demand something, but not necessarily food. A little water, which fills the "aching void," but does excite the secretion of gastric juice, will often quiet them at once, and tide them over to the next time for feeding. It is rarely necessary to give medicine, and I avoid doing so just as much as possible.

After the second month, every two and a half, or even three hours, may be often enough. I have never seen any evil result, nor do I believe there can, from giving the milk every two hours and a half during the day, whatever be the age of the child.

The more food the child takes within these limits during the day, the less it is likely to demand at night.

After the third month the child should sleep most of the night. To become a sound sleeper it should early form the habit of undisturbed rest. I believe it is mainly a matter of discipline, and that every healthy infant will readily form the habit of sleeping seven and eight hours, or longer, at night. The last bottle should be given at about ten, and the first in the morning at about six or seven. At first it will probably cry for hours, till it sobs itself to sleep, and this it will possibly do for three or four nights. After that time there will be no more trouble. It will sleep through the night from ten to six or seven without waking. This plan is often objected to as cruel and heartless, and because the child must surely hurt itself. I have seen it tried many times with the happiest results, and have never known any harm come from it. Children early disciplined in this way become good sound sleepers.

Bottle-feeding should be made as simple as possible. I believe it better to discard every form of patent nursing-bottle. They cause an unnecessary expense, and, moreover, are positively harmful in the hands of ignorant or careless people. A bottle should be used which requires little or no effort to keep clean. The simple long neck white bottle, made in two sizes, of six and eight ounces, I have found the best. It is only necessary to thoroughly cleanse it after each feeding, and set it aside filled with water.

The nipple I have found uniformly the best is the one made by the Davidson Rubber Company, of Charlestown, Mass., and is known by their name. It is warranted not to contain any substance injurious to the child.

Formerly all the nipples that could be found in the shops contained large holes in the end. It was impossible to find any with very small ones.

It is one of the most important points in bottle-feeding that the child take the milk slowly into the stomach. When the nipple with large openings is used, the milk is taken in faster than the gastric juice can be secreted, and large indigestible curds are the result.

Eight years ago, through Caswell, Hazard & Co., I got the Davidson Rubber Company to make me some nipples without holes. I believe they were the first ever made; I know they were the first they had ever made. In these, at the apex, I made one small hole with the finest cambric needle heated to redness in an alcohol flame.

Through an opening of this size the infant can draw the same amount of milk as from the breast. It requires some effort, which develops the buccal muscles, as nature intends. The milk flows slowly and keeps pace with the formation of gastric juice.

This solved the problem with a number of children then under my care, and has given me confidence in advising the bottle for the children of my patients ever since.

If a child is ill from any cause the digestion is likely to suffer. If undigested caseine appears in the passages it is advisable to weaken the dilution a little. For instance, if a proportion of eight parts of milk to twelve of water is being used it is well to make it eight parts to fourteen or sixteen, or even weaker, till the signs of imperfect digestion have disappeared.

Can condensed milk I do not think it safe to use; it is too rich in sugar. Of course when it is very much diluted it does not appear too sweet, and, having commenced with it, and if the child is doing well, we are likely to go on with it. From month to month we dilute it less and less; when at half the consistency of crude milk it is excessively sweet. It is true, children have apparently done well on it, but there are children who will thrive on any food. I believe such an amount of sugar is positively harmful. The condensed milk made fresh every day without sugar is not, of course, open to the same objections.

I have seen so much trouble caused by wet-nurses, directly and indirectly, that I invariably advise the bottle

where the infant is healthy, and the mother cannot or will not nurse her child. I believe it safer to run the slight risk of the bottle's not suiting than to introduce such an element as a wet-nurse into a family.

The physical defects of the bottle we understand pretty well, and can, to a great extent, guard against them. Its moral qualifications, compared with those of the wet-nurse, are simply sublime.

Reports of Hospitals.

ST. FRANCIS HOSPITAL, NEW YORK.

SERVICE OF DR. GEO. F. SHRADY.

(Reported by J. H. BROWNING, M.D., House Surgeon.)

ANÆSTHESIA BY RECTAL ETHERIZATION.

THE following cases are reported for the purpose of illustrating some points of practical interest bearing upon etherization by the rectal method:

J. S——, aged fifty-four years, cigar-maker, was the subject of Dupuytren's contraction of ulnar aspect of right palm, involving the little finger. The usual operation by multiple subcutaneous incisions was performed April 28th, by Dr. Shrady, complete anæsthesia having been induced by the administration of ether by the rectum. The simple apparatus made by Mr. Ford was used, consisting of a cylindrically shaped glass vessel containing sulphuric ether (*vide* p. 504), provided with a perforated cork, a rubber tube, to the extremity of which was attached the vaginal nozzle of a Davidson's syringe. The vessel was immersed in a pitcher of hot water, 120° F., and the nozzle introduced to its full length into the rectum. The following phenomena were noted by Dr. Spence, a member of the house staff: Three minutes after the introduction of the nozzle into the rectum the patient experienced a sense of moderate distention of the colon, accompanied with a fulness in the head and a taste of ether in the mouth. The odor of the ether was at the same time detected in his breath. Four minutes after the commencement of etherization, the patient talked incoherently, the respirations increasing to twenty-eight per minute. Pulse increased in frequency and force. No other evidence of excitement; no vomiting. In six minutes patient completely anæsthetized. The operation was then performed, lasting eighteen minutes; at the end of that period, twenty-four minutes in all, the tube was withdrawn from the rectum. Amount of ether used was two and a half ounces. Recovery was rapid and complete. No nausea. The only thing noted by patient was fulness of abdomen. This latter condition continued to a considerable degree during the night, and in the morning quantities of gas having the odor of ether were discharged. No diarrhœa or other evidence of intestinal irritation.

On the same day a woman, aged thirty-five years, was etherized by the same method for the purpose of redressing a severe compound dislocation of the ankle. Three and one-fourth minutes after the introduction of the rectal tube the patient tasted the ether and exhaled the characteristic odor. She then complained of bearing down sensations as if threatened with evacuation of the bowels. None, however, occurred, but instead she vomited a meal eaten an hour before. No other vomiting, nor intestinal trouble. In seven minutes muttering began, followed by a short period of excitement and crying. Face flushed and eyes staring. Twenty minutes elapsed before anæsthesia was effected. Although muttering and apparently slightly cognizant of what was going on, she suffered no pain. The limb was dressed and plaster-of-Paris splint applied. Patient under the influence of ether fifty minutes. Amount used two and one-fourth ounces. Patient recovered rapidly without vomiting, bowels moderately distended. No diarrhœa. Patient, who had taken ether by the cone four times before, expressed decided preference for the rectal method, as it saved her from feelings of suffocation and subsequent vomiting.

PRESBYTERIAN HOSPITAL, NEW YORK.

SERVICE OF DR. GEO. F. SHRADY.

(Reported by ALPHEUS FREEMAN, M.D., House Surgeon.)

ADMINISTRATION OF ETHER BY THE RECTUM.

A male, aged twenty-two, was etherized by the rectal method, April 29th, for the purpose of opening a bursal sinus over trochanter. (The same apparatus was used as previously described.) One minute after introduction of tube patient noticed a fulness in head, distention of the bowels, tasted the ether and exhaled the same in the breath. At the end of three minutes there was a short period of marked exhilaration. At seven minutes he became unconscious, and had involuntary evacuations of bladder and rectum. At ten minutes he was completely relaxed and anæsthetized, when the operation was performed; Drs. Briddon, Castle, A. H. Smith, Wendt, and members of the house staff being present. Immediately before the operation patient became slightly cyanosed by the slipping backward of the tongue. Two ounces of ether used. Vomited a slight amount of mucus on recovering. Complained of no uneasiness of the bowels. Was conscious within twenty minutes after the operation, and was so entirely free from nausea that he ate a supper two hours subsequently.

C. M——, male, aged twenty-five, was etherized same day by the rectal method for the purpose of cauterization for carious disease of os calcis. On introduction of tube complained of burning sensation in rectum. This was possibly due to condensation of ether vapor in the nozzle. In one minute symptoms of intoxication manifested themselves and ether odor in breath was perceptible. A minute after became emotional. This condition finally culminated in violent resistance, displacing the tube. The latter promptly reintroduced. Ten minutes elapsed before anæsthesia was induced. Relaxation not marked. Pacquelin's cautery applied at end of thirteen minutes. Patient under ether fifteen minutes, less than two ounces used. No undue distention of bowels. Patient vomited once after having been taken to the ward. No subsequent nausea. During the succeeding twenty-four hours there were three liquid evacuations attended with the discharge of gas. Recovery from ether took place within an hour, without excitement.

A female, aged fifty-six, was next etherized by the same method, for the purpose of examining rectum, and operating upon hemorrhoids. Immediately after introduction of tube she complained of distention and tenesmus. At four minutes she became dizzy, flushed, and tasted the ether. At seven minutes was so completely anæsthetized that there was for a short time stertorous breathing. There was more or less constant escape of ether vapor by the side of the tube, due, as discovered in the examination, to constriction caused by an epithelioma high up in the rectum. Sufficient ether passed through the stricture to produce the anæsthesia. Amount of ether used, two and one-fourth ounces. No vomiting or subsequent diarrhœa. Recovery from ether in one hour.

The accounts of the above phenomena in these cases were furnished by Dr. Garner, senior surgical assistant, who took careful notes during the progress of the etherization.

CHLOROFORM AND OIL OF CLOVES.—Prof. Nussbaum recommends a few drops of oil of cloves to be dropped in the towel or apparatus used for the administration of chloroform in cases where the chloroform is disagreeable.

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ANÆSTHESIA BY THE RECTAL METHOD.

THE method of administering ether by the rectum has, as might have been anticipated, attracted a great deal of attention. Since our notice of it in last week's issue we have heard of its being employed by several surgeons of this city, and it is fair to suppose that operators in other localities have not neglected their opportunities for testing Mollière's theories. Elsewhere will be found reports which on one hand tend to show the possibility of inducing complete anæsthesia by vapor introduced into the rectum, while on the other hand they are offset by a case terminating fatally after such etherization. While it is proper to note the timely warning sounded in the latter instance, it cannot be denied that rectal etherization has a range of adaptability which can only be measured by more extended experience. It has proved, as far as a few cases can do so, that it is at least a valuable addition to the ordinary means of etherization. Our first care, of course, must be to eliminate the possible dangers which may attend such administration. Although these can only be practically indicated by extended trial, it is proper that we should discuss in this connection one or two possibilities. Distention of the intestines, although not endangering rupture, may in prolonged operations embarrass the respiration.

Again it would seem that the degree of etherization may not be always under control. There may be at times, after complete anæsthesia is induced, an amount of vapor in the intestines which may tend to deepen the anæsthesia beyond safe limits. This extra quantity of vapor is practically beyond our reach, as there does not appear to be any means by which we can secure its ready escape.

In ordinary anæsthesia the cone may be quickly removed in case of danger, the lungs can be allowed to empty themselves, and fresh air can be freely admitted. How an equal degree of safety can be secured for the rectal method under like conditions remains to be proven.

The number of patients who have subsequently suffered from intestinal irritation is another item to take into account in estimating the relative advantages of the two methods. It is quite possible that these results may be explained by the introduction of condensed vapor, and that improved methods of administration may effectually guard against them.

It is quite remarkable to note how quickly the vapor is absorbed, some of the patients tasting the ether within two minutes after the introduction of the rectal tube. The general anæsthetic effect is not so rapidly obtained, as a rule, as that by the cone, yet the former administration is less distressing to the patient, and the usual accompaniment of the cone method, the fear of suffocation, is absent. Subsequent vomiting is also less frequent by the rectal than by the old method. Patients recover more quickly from the effects of rectal than from ordinary etherization, and manifest less subsequent excitement. The comparative merits of the two methods are illustrated by the testimony of the patient in St. Francis' Hospital, who had tried both. These are matters which deserve important consideration from many points of view.

The new method is neither applicable nor necessary in prolonged operations. Even in those upon the face and throat, anæsthesia by the rectal tube need only be alternated with that by the cone, in a large range of cases which will readily suggest itself to the operator. Indeed, in all severe and prolonged operations upon the face a hypodermic injection of eight or ten minims of Magendie's solution of morphine, given a few minutes before cone etherization is commenced, is sufficient, in a large majority of cases, not only to tide over the intervals when the mouth must be free, but to enable the operator to dispense with the ether altogether for varying periods.

In most nervous persons it may be found advantageous to commence etherization by the rectum until unconsciousness is produced, when the anæsthetic effect can be maintained by the cone with the usual surety and safety. But, as we have already remarked, the range of applicability of the rectal method must be determined by time and experience, and we must be prepared to labor and to wait accordingly.

THE STATE BOARDS OF HEALTH AND THE AMERICAN PUBLIC HEALTH ASSOCIATION.

AT the last meeting of the American Public Health Association, held in Detroit, an informal meeting of members of the State Boards of Health was held for the purpose of considering the question of perfecting an organization of these bodies, either within or without the Public Health Association. After an interchange of opinions a committee was appointed to prepare a plan of organization to be presented at a future meeting. This committee is to meet at Washington during the first week in May.

There has been for several years a growing desire, on the part of the members of the State Boards of Health, to have larger opportunities for annual discussions of the topics which pertain to their special kinds of work, than they have at the annual meetings of the Association. When the Association was organized in 1872, there were but five State Boards of Health in existence, and they were very feeble bodies. The members of these boards heartily joined in the organization for the purpose of gaining thereby better grounds of support and maintenance. Now there are thirty State Boards engaged in active and vigorous work, and many of them have become powerful factors in shaping and controlling public health administration in their respective States. Meantime the As-

sociation has grown to be a large and powerful body, whose annual sessions are so crowded with business and papers that but little time can be given to discussions. It follows that to meet the new and increasing interests which centre in the annual meetings of the Association, either the original plan of organization must be changed or other associations must be formed.

In our opinion the reorganization of the Association is in every respect the preferable course to pursue. While the multiplication of associations may have some special advantages by giving greater prominence in the discussions of individual topics, yet there is a great and necessary loss to members of that larger contact with co-workers in allied fields of the public service, and of thinkers and writers on sanitary subjects, which follows a meeting of the Association, and which tends to liberalize and stimulate every mind. It is evident, also, that the present elements which make up the Association can readily be harmonized in one body, and yet each separate interest have all the latitude required for healthy development. Every national organization which has attained the importance and dimensions of the Public Health Association ought to create sections in which the first reading of papers is required, and preliminary discussions allowed, while the meetings of the Association should be reserved for discussions only, and of well-defined and formulated subjects of interest to all members. By this change in the method of its meetings every paper should be fully considered and discussed by those most interested in the subject; every member would have opportunity of bringing forward in the appropriate section such questions as he was desirous of submitting for consideration; while the sessions of the Association would be made tenfold interesting and profitable by well-organized and conducted discussions. We trust the Committee having this matter in charge will decide positively against the organization of a new association, but will meet the growing wants of the various interests represented in the Association by proposing the formation of a suitable number of sections.

THE SEVENTH CHOLERA REPORT OF DR. KOCH.

DR. KOCH has sent a seventh report of his work to the German Minister of the Interior, dated Calcutta, April 4th.

He says that, since his previous report, twenty more autopsies have been made upon victims of cholera, and that the dejections of eleven cholera patients have been examined. This makes the total number examined in India, of cadavers forty-two, of cholera patients twenty-eight. The last cases do not furnish anything new, but confirm the results of previous examinations.

Experiments are now going on with reference to the power of certain agents, such as sublimate, phenol, etc., to destroy the (alleged) cholera-bacilli. These investigations are not yet completed. Only it seems to have been established that dry heat kills the bacilli, and that they remain active a long time in moist media.

The most important feature of Koch's last report is his account of the discovery of the bacillus in certain water-tanks. He states that throughout India there are numerous tanks of water which the inhabitants use for washing, drinking, and bathing. These tanks are not kept very clean, and latrines are often placed near them, so that they often become infected with excrementitious fluids. Now, it has often been noticed, says Koch, that small epidemics of cholera are apt to surround these tanks, the disease affecting those who have been using the water. A circular epidemic of this kind was investigated by the Commission. It was limited exclusively to a ring of huts about the tank, and affected about one hundred persons. The water of the tank was examined, and the same bacilli were found that were seen in the cholera dejections. After the subsidence of the epidemic, none of these organisms could be found in the tank. These facts are looked upon as strong arguments in favor of the specific character of the organism which Koch has discovered.

THE CODE QUESTION AT THE AMERICAN MEDICAL ASSOCIATION.

WE can hardly add anything to the following able presentation of the code question by the editor of the *Cincinnati Lancet and Clinic*. We believe it expresses the general feeling of the profession:

"The code question, like Banquo's ghost, will not down, and will cause discussion. In fact, it will bear discussion, and we hope that a large committee of representative men will be appointed to report on the desirability of a revision of that document. We would further suggest that such committee be constituted most largely of the younger members of the Association. As a class, they are much more interested in the enactment of laws that are to govern professional intercourse than those who have already served their day and generation, and who have obtained all the honors the profession have seen fit to bestow upon them. It is in the interest of the whole medical profession that it should not be divided into factions, and yet that is bound to be the result of a retention of a code in its present form. We have the utmost respect for the code, and believe it has been a mighty factor in the elevation of the standing and education of the medical profession; but as a time did come when it became necessary, for the salvation and unity of the nation, that the Constitution should be amended, so it has come about that, in order to preserve the harmony and unity of the American medical profession, it becomes necessary to remand that document to a large and representative committee for amendments, and such amendments should be sent back to the societies now entitled to send delegates to the Association for affirmation or rejection.

"Unless the Association takes some such action the quicksands of disaffection and consequent disintegration are absolutely certain to take place, and, instead of a united, influential and grand body, the American Medical Association will become a skeleton faction, eminently respectable and honored for the good it has done."

THE BEST FORM IN WHICH TO USE IODOFORM.—Hoeftman is of the opinion that the evil influence from iodoform is due to the form in which it is used, the crystals being less objectionable than the powder. Czerny thinks it depends more on the extent of the wound and the presence of fat. Koenig thinks it dependent rather on the age of the patient—the older the patient the greater the susceptibility.

News of the Week.

THE NEW YORK CANCER HOSPITAL.—The trustees of the New York Cancer Hospital have purchased a site on Eighth Avenue, betwen One Hundred and Fifth and One Hundred and Sixth Streets, 200 feet by 180, on which they intend to erect buildings without delay. The funds on hand amount to $275,000.

THE GARFIELD MEMORIAL HOSPITAL.—The Board of Directors hope to open this hospital in May. The medical and surgical staff has been formed as follows: Drs. Fred. May and N. S. Lincoln, Consulting Surgeons; Drs. W. W. Johnston, J. Taber Johnson, and A. Y. P. Garnett, Consulting Physicians; Drs. C. E. Hagner and J. H. W. Lovejoy, Attending Surgeons, and Dr. Swan M. Burnett, Ophthalmologist and Otologist.

DEATH OF DR. SANDFORD B. HUNT.—Sandford B. Hunt, M.D., editor of the Newark *Advertiser*, died on April 27th, at his home in Irvington, near Newark, N. J., aged fifty-eight years. He was a native of Ithaca, N. Y. About 1855 he became Professor of Anatomy in the Buffalo Medical College, and editor of the Buffalo *Medical Journal*. Afterward he was the editor of the Buffalo *Commercial Advertiser*. He was the surgeon of the One Hundred and Ninth New York Volunteers, and became surgeon-in-chief and medical director at New Orleans. He was mustered out of service with the rank of brevet lieutenant-colonel. During the first year of peace he wrote the history of the Sanitary Commission.

GOVERNMENT QUARANTINES.—The Ship Island (Miss.) quarantine station, Surgeon Robt. D. Murray, U. S. Marine Hospital Service, in charge, is now open for the reception of infected ships, as is also the Sapelo station, under charge of Acting Assistant Surgeon Geo. H. Stone, with Dr. Brunner as an assistant, and stationed on the island. Cape Charles quarantine station (Fisherman's Island, Chesapeake Bay) will be open for work on the 15th inst., under charge of Passed Assistant Surgeon Fairfax Irwin, U. S. Marine Hospital Service.

MEDICAL BERLIN.—At the meeting of the Society of Therapeutics, Dr. P. Mendel read an elaborate paper upon the "Pathology and Treatment of Epilepsy." Most of the paper was devoted to a discussion of the pathology. Mendel was inclined to accept Nothnagel's view that epilepsy is a disease in which the convulsions are produced by anæmia of the medulla, rather than the view that the disease is cortical. Cortical epilepsies, he thought, were always partial. In the treatment he recommended the usual course of bromides given in valerian tea. Atropia he thought of some value also.

MEDICAL PARIS.—At the meeting of the Société de Biologie, March 29th, M. Rabuteau made a communication upon "Anæsthetics," in which he stated that all monatomic ethers were bad anæsthetics, and all diatomic ethers were good anæsthetics. M. Ch. Richet, in a paper upon the "Influence of Cerebral Lesions upon the Bodily Temperature," made the generalization that cerebral lesions, as a rule, cause a considerable rise of temperature.

M. Burke made some remarks upon "Metallotherapy," in which he replied to criticisms against it.

At the meeting of the Society, April 5th, MM. Megnin, Rochefontaine, and Laborde presented facts showing that "copper has no power against cholera."

M. Blanchard announced that the "tetrachloride of carbon" was not an anæsthetic, as asserted by Rabuteau.

M. Quinquand presented a note in behalf of M. Philippeaux, to the effect that cadavers could be preserved for five months by packing them in bran and charcoal. M. Quinquand also presented a report relating to the action of "paraldehyde upon the blood." By injecting the drug into the circulation, a great decrease in the excretion of carbon took place and the animals died in twenty-four hours.

TO MAKE ALL QUALIFIED PHYSICIANS EQUAL BEFORE THE LAW.—Senator Colquitt, of Georgia, presented on April 22d the petition of Dr. F. H. Orme and others, citizens of Atlanta, Ga., praying for the passage of Senate bill 1223, making all qualified physicians equal before the law in the Government service. Referred to the Committee on Civil Service and Retrenchment. Similar petitions were presented by Senator Sawyer, of Wisconsin, from H. L. Palmer and forty-five other citizens of Milwaukee and Appleton, Wis., and by Senator Blair, of New Hampshire, from Dr. J. Lance and forty-nine other citizens of Campton Village, N. H., which were also referred to the same committee. The following is the text of the bill referred to: "A bill to secure to the medical profession equal rights in the service of the United States.—Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That all appointments to medical service under the Government shall be made from graduates of legally chartered medical institutions, without discrimination in favor or against any school or theory of medical practice. Section 2. That any violation of the foregoing section shall be punished in the same manner as prescribed for like offences by the act entitled 'An act to regulate and improve the civil service of the United States,' approved January 16, 1883." Read twice and referred to the Committee on Civil Service and Retrenchment.

On April 23d Senator Pendleton, of Ohio, presented a similar petition to above, signed, as he said, by "a great many citizens of Covington, O."

CONGRESSIONAL ITEMS.—Mr. Collins, of Massachusetts, introduced a joint resolution on April 28th, providing for the continued reports of the Columbia Hospital and Lying-in Asylum; read a first and second time, and referred to the Committee on the District of Columbia, and ordered printed.

The Dingley shipping bill was passed by the House on Saturday last. It was amended so that the expenses of the Marine Hospital Service shall be paid out of the tonnage tax instead of by a tax on seamen. This will relieve the service of much clerical labor, and as the tonnage tax is mostly paid by foreign vessels, everybody should be happy.

DR. RALPH D. MARSH, of this city, died April 28th. Dr. Marsh entered upon the practice of his profession in the Ninety-ninth Street Hospital, where he was in charge. In 1881 he retired from the hospital, and soon took rank as one of the leading physicians of Harlem.

THE MEDICAL ASSOCIATION OF THE STATE OF ALABAMA met at Selma on April 8th, and had an ethical rather than scientific session. It "resolved" to congratulate the Old Code New York State Association on having separated from the "demoralizing movement" of the State Society. A resolution condemning the Louisville Medical College for unethical advertisements was also passed. In fact, the Society seems to have done everything except scientific work—this latter being represented by an omnibus discussion and a "Plea for an Unborn Child."

THE TENNESSEE STATE MEDICAL SOCIETY, at its annual session, April 8th and 9th, appropriated $50 for the Sims Memorial Fund. The meeting of the Society was largely devoted to the subject of securing better medical organization, and, if possible, a medical registration law. A committee was appointed to memorialize the Legislature for this purpose.

ANOTHER FORTUNATE MEDICAL COLLEGE.—We congratulate the Bellevue Hospital Medical College upon being the recipient of a gift of $50,000 from Andrew Carnegie, one of the trustees of the college. This sum is to be expended in the erection of a building and in apparatus to be devoted to laboratories for practical work and teaching in the different departments of the science of medicine.

THE BILL TO DEFINE THE TITLE AND DUTIES OF CERTAIN OFFICERS OF THE MEDICAL DEPARTMENT OF THE ARMY, introduced by Senator Logan in February last, has been up for consideration several times during the last week. The following is the bill as amended: "That from and after the passage of this act the six officers of the rank of colonel now authorized by law, designated as chief medical purveyor, surgeons with the rank of colonel, and assistant surgeon-general, shall be styled assistant surgeons-general, continuing to have the rank, pay, and emoluments of colonels, to be placed on the Army Register in the order of seniority of dates of present commissions as colonels. That the senior assistant surgeon-general shall be charged with the duties of chief medical purveyor, who shall be located in Washington City, and that the other assistant surgeons-general shall be assigned to such duties in the Medical Department as the interests of the service may demand. Sec. 2. That the officers of the rank of lieutenant-colonel now authorized by law, designated as surgeons with the rank of lieutenant-colonel, and as assistant medical purveyors, shall be styled deputy surgeons-general, with the rank, pay, and emoluments of lieutenant-colonels, to be placed on the Army Register in the order of seniority of dates of present commissions as lieutenant-colonels. That the deputy surgeons-general shall be assigned to such duties in the Medical Department as the interests of the service may demand. That the duties of assistant medical purveyors shall be performed by officers detailed. Sec. 3. That all acts or parts of acts inconsistent with the provisions of this act are hereby repealed."

CORRECTION.—In Dr. Jackson's article on Dandruff, page 430, the quantity of calomel used should be 40 instead of 11 grains.

THE TER-CENTENNIAL AT EDINBURGH.—The Edinburgh papers give glowing accounts of the centennial ceremonies. The degree of LL.D. was conferred upon about twenty-five medical men of Europe, and upon Drs. Fordyce Barker, John S. Billings, and (*in absentia*) S. D. Gross, of this country.

THE SIMS MEMORIAL FUND.

To the Medical Profession and Others throughout the World:

The great achievements of Dr. J. Marion Sims call for some more lasting testimonial than obituaries and eulogies. To him medical science is indebted for much brilliant and original work, especially in gynecological surgery. Those who have been benefited by his teachings and new operations, and such as have had the direct advantage of his personal skill are among the first to recognize and acknowledge this debt.

To him is due the honor of giving the first strong impulse to the study of gynecological surgery in America.

It is believed that the medical profession everywhere, the vast number of women who owe their relief from suffering directly to him, and those who realize the benefits he first made possible, will gladly unite thus to honor the man through whose original and inventive genius such blessings have been conferred upon humanity.

At the suggestion of many friends, therefore, the subjoined committee has been organized, and it is proposed that a suitable monument be erected to his memory in the city of New York.

To this end the active co-operation of the medical profession and the many other friends of Dr. Sims throughout the world is respectfully solicited. Contributions of one dollar and upward may be forwarded to the journal which has been constituted the treasury of this fund—THE MEDICAL RECORD, New York.

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NOTE.—The *Faculty of Physic of the University of Maryland* should have been credited with the $100.00 contribution to the Sims Memorial Fund, instead of the Faculty of Physicians of the University of Baltimore, as stated in our issue of March 29th. This seems all the more just, as the University of Maryland was the first medical school in the country to move in the matter. —ED.

Obituary.

WILLARD PARKER, M.D., LL.D.,

NEW YORK.

THOUGH not unexpected, news of the death of Dr. Willard Parker, on April 25th, was a shock to his many friends in the profession. For over a year and a half he had been suffering from pyelitis, and for some months past he had been at times critically ill. About two weeks before his death he was attacked with paralysis and all hope of his recovery was abandoned.

Dr. Willard Parker was born in Lyndeborough, N. H., September 2, 1800. He came of hearty and hardy Puritan stock on both his father's and mother's side. His father was a farmer, and when the doctor was but five years o

age his parents removed from New Hampshire to the old homestead in Massachusetts, which was owned by the doctor up to within a short time of his death. Willard Parker was a sturdy, ambitious youth, who assisted his parents on the farm in summer and attended the village school in the winter. His great ambition was to secure a college education. To provide money for this purpose, his father being unable to furnish him with the funds, he began teaching school when eighteen years of age. He taught for four years, and having accumulated what seemed a sufficient amount he entered Harvard University in 1822 and was graduated in 1826. He had intended to study for the ministry, but during his college career circumstances led him to change his plan.

In the spring of 1827 he received an appointment as an *interne* at the Chelsea United States Marine Hospital. He remained there about two years, receiving $13 a month for his services. Afterward he was appointed Professor of Anatomy in the Berkshire County Medical College at Pittsfield, Mass., then one of the leading institutions of its class in the country. In 1832 he was also made Professor of Surgery, and for four years filled both chairs, delivering two lectures daily. In 1836 he accepted the chair of surgery in the Cincinnati Medical College, remaining there for three years. During his occupancy of this position he made a trip to Europe to study the methods in the French and English medical colleges. In 1839, after his return from Europe, he settled in this city, having been appointed lecturer on surgery in the College of Physicians and Surgeons.

His success here was immediate, and he rapidly rose to the position of one of the foremost surgeons and general practitioners of the city and country, his fame extending even across the waters to the European Continent. Dr. Parker was both successful and popular as a lecturer. This was due to his wonderful aptness in illustration, in which he avoided, as far as possible, technicalities, seeking his subjects among common-place and readily understood objects and incidents.

Among the public works in which Dr. Parker took an active part was the reorganization of the city hospital system in 1845. This resulted in converting Bellevue Hospital from an alms-house into a charity hospital, under a board of Governors. Dr. Parker and the late Dr. James R. Wood were appointed visiting surgeons. Though not, perhaps, so prominently identified with the growth of that institution as Dr. Wood, he was more or less actively and intimately connected with the steps which led to its growth. He took a deep interest in its success and contributed much to this end. Dr. Parker was also prominently identified with the reorganization of the Health Department of the city. In 1865 Dr. Parker succeeded Dr. Valentine Mott as President of the State Inebriate Asylum at Binghamton, entering upon the work somewhat as a matter of duty. He saw, too, a possibility of carrying out well-digested views as to the treatment and cure of dipsomania. He believed that alcohol was a poison, never a food, and that drunkenness was a disease, often hereditary in character. He counselled all his patients to abandon the use of spirits at all times, except on the advice of a physician. Dr. Parker resigned his active duties as Professor in 1870, in which year he received the degree of LL.D. from Princeton College. Since that time he had been consulting surgeon to the New York, Bellevue, St. Luke's, Roosevelt, and Mount Sinai Hospitals, and Professor Emeritus of Surgery in the College of Physicians and Surgeons. He was an active or honorary member of many societies, medical and surgical, in this and several other States. With his retirement from teaching came a partial retirement from his labors as a general practitioner. He continued to practise, however, in many families whose physician he had been through a long series of years, and he was frequently called in consultation in difficult surgical and medical cases.

Dr. Parker insisted upon having the full confidence of his patients, and in return he confided to them his full diagnosis of the case, its causes, possible results and mode of treatment, and materials used to accomplish a cure. To this method he ascribed much of his success. His methods of treatment were of the simplest possible character as a rule, and he had no faith in, or fondness for, medication, save where he deemed it absolutely necessary. Homely remedies, such as are sometimes called "old women's remedies," and which called simply for an obedience to the rules of health, a simple diet, and abstinence from medicament, were often his sole prescriptions. Since retiring from teaching, in 1870, Dr. Parker had passed the greater portion of his time at his farm in New Canaan, Conn. There he indulged his fondness for agriculture, and found health, rest, and strength. His first city residence was at the southeast corner of Bleecker Street and Broadway. There during his first year's practice his income from his professional business amounted to but $300. During the height of his professional career, however, this sum would not begin to equal his weekly income from the same source.

It was as a surgeon that Dr. Parker achieved his most brilliant successes. He was ambidextrous, using either hand in operating with equal ease and facility. Even during the past year he performed delicate operations without the use of glasses, using either hand, as came the most convenient. Among his contributions to the art of surgery were cystotomy, for the relief of chronic cystitis; an operation for the cure of abscess of the appendix vermiformis, and the laceration of the perineum and sphincter ani during parturition, cured by the division of the coccygeal attachment of the sphincter and subsequent closure of the perineum by sutures. He was also the first to point out the condition known as concussion of the nerves as distinguished from concussion of the nerve-centres, and which had previously been mistaken for a condition of inflammation. Dr. Parker was not a writer, and even his reports of remarkable cases or delicate operations have been made for him by other members of his profession. Though a close student, he disliked to write, this aversion being in part due to the fact that the pen was not rapid enough to follow his thoughts. A large number of reports of his cases appear in medical and surgical journals.

It was due in great part to Dr. Parker's simple mode of life that he displayed so much vigor in his advanced years. He had an erect carriage, an elastic step, and eyes and features that sparkled with life and animation.

Army and Navy News.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, United States Army, from April 20, 1884, to April 26, 1884.

HOFF, JOHN VAN R., Captain and Assistant Surgeon. To be relieved from duty at Alcatraz Island, Cal., and to report to the commanding officer at Fort Mason, Cal., for duty as Post Surgeon. S. O. 45, par. 3, Headquarters Department of California, April 16, 1884.

PORTER, JOSEPH Y., Captain and Assistant Surgeon. Granted leave of absence for two months, to take effect about May 5, 1884. S. O. 38, Headquarters Division of the Missouri, April 19, 1884.

'BIART, VICTOR, Captain and Assistant Surgeon. Granted leave of absence for one year on surgeon's certificate of disability, with permission to leave the Division of the Missouri. S. O. 91, par. 2, A. G. O., April 19, 1884.

LA GARDE, LOUIS A., Captain and Assistant Surgeon. Granted leave of absence for one month, with permission to apply for two months' extension. S. O. 91, par. 1, A. G. O., April 19, 1884.

Official List of Changes in the Stations of Medical Officers United States Navy, for the week ending April 26, 1884.

HIBBETT, C. T., Passed Assistant Surgeon. Ordered to United States iron-clads, James River, Va.

AULICK, H., Passed Assistant Surgeon. Detached from iron-clads and ordered to New Hampshire.

DIXON, W. S., Passed Assistant Surgeon. Detached from Hartford, and ordered to Coast Survey steamer Hassler.

TERRILL, F. H., Passed Assistant Surgeon. Detached from Hassler and ordered to Hartford.

WISE, J. C., Surgeon. Detached from New Hampshire and placed on waiting orders.

SCHOFIELD, W. K., Medical Inspector. Appointed Medical Inspector on Active List.

NASH, F. S., Passed Assistant Surgeon. Detached from Laboratory and ordered to Alert (Greely Relief Expedition).

HALL, J. H., Passed Assistant Surgeon. Ordered before Retiring Board.

NELSON, H. C., Medical Inspector. Placed on Retired List.

BATTLE, S. W., Passed Assistant Surgeon. Placed on Retired List.

TERRILL, F. H., Passed Assistant Surgeon. Resigned.

MURRAY, J. M., Passed Assistant Surgeon. Ordered to Minnesota.

Reports of Societies.

ARKANSAS STATE MEDICAL SOCIETY.

Ninth Annual Session, held at Little Rock, Ark., April 30, May 1 and 2, 1884.

(By Telegraph to THE MEDICAL RECORD.)

FIRST DAY, WEDNESDAY, APRIL 30TH.

THE Society met in the Capitol Building, Little Rock, Ark., Wednesday, April 30, at 10 A.M., and was called to order by the President, J. M. KELLER, M.D.

Ninety-one delegates were present, and many invited guests.

DR. L. R. STARK gave the

ADDRESS OF WELCOME

to the members, extending the hospitalities of the city and congratulating them upon the promise of a profitable and successful meeting.

ADDRESS OF PRESIDENT.

DR. J. M. KELLER then delivered his annual address. After a few appropriate introductory remarks he proceeded to glance at some points connected with the progress of medicine and surgery. Among these antisepsis in surgery claimed paramount attention. He reviewed the benefits which have accrued from its adoption, principally in the direction of guaranteeing results which were impossible without it. Other topics of interest touched upon were the advisability of excision of the primary sore in syphilis, the value of cremation as a sanitary measure, the employment of whiskey for anæsthetic purposes, and the necessity of concerted action in obtaining medical legislation in favor of legitimate medicine, and the influence for good which medical men, associated in scientific bodies, could exert to that end.

CONCUSSION OF THE SPINE.

DR. E. BENTLY, U.S.A., read a paper on concussion of the spine caused by blows, falls, and railroad collisions, in which he defined the kinds and degrees of shock in each, also their symptoms and pathology. The treatment in all was mainly in the direction of rest, with tonics and careful attention to local and general hygiene.

DR. W. P. HART presented an able argument against the generally accepted doctrine of the germ theory in syphilis, exposing its lack of demonstration and inconsistency, principally in connection with the assumption that said germs exist in the primary and secondary, but not in the tertiary forms of the disease.

SOME IDEAS ON ANTISEPTICS AND ANTISEPSIS

was the title of a paper by DR. R. B. CHRISTIAN, in which it was very justly claimed that the main points in the treatment of wounds, cleanliness, free drainage, and rest, did not, as a rule, receive their proper recognition.

DR. D. C. EWING read a paper on

PROCIDENTIA UTERI ATTENDED WITH RUPTURE.

The procidentia occurred during labor; the child was delivered by the forceps, and there was rupture of the os uteri and five inches of the body of the organ. The parts were sewed up without delay and without antiseptic precautions, recovery taking place in three weeks.

SECOND DAY, THURSDAY, MAY 1ST.

MISCELLANEOUS BUSINESS.

The meeting was called to order at 11 A.M. by the President, and the morning session was occupied in the transaction of routine business and the reception of the reports of the Standing Committees on Medical Education, Medicine, Surgery, Gynecology, Medical Legislation, Necrology, State Medicine, and County and Municipal Societies.

At the commencement of the afternoon session DR. W. P. HART presented an exhaustive argument

AGAINST THE GERM THEORY OF MALARIA,

founding the same principally upon the facts of the occurrence and non-occurrence of the fever independent of the conditions claimed to be required.

USE OF OPIUM IN CONGESTIVE FORMS OF FEVER.

DR. J. J. MCALMONT read a paper on the above subject, advocating small and repeated doses of opium in the congestive forms of fever, with a view of counteracting the depressing influence of malaria on the nervous system, and of increasing the blood-pressure. In following out such indications he believed that the drug was as much a specific as was quinine.

THE MANAGEMENT OF DYSPEPSIA.

DR. T. E. MURRELL read a paper on this much hackneyed subject, but brought out some practical points which are worthy of note, viz., that the disease in this country is mostly due to an excess of amylaceous and saccharine foods, and could be in a measure relieved by a more varied diet, in which fresh meats largely entered. He was greatly in favor of hot water drank an hour before each meal in cases where there was much pain or discomfort in the digestive processes.

At the evening session DR. G. W. HUDSON presented a case of congenital extrophy of the bladder, complicated with umbilical hernia, relieved temporarily by a supporting-plate and receptacle. He proposed a radical operation when the patient was old enough for the same.

A case of gunshot wound of the bladder was related by DR. W. F. BLACKBURN. It was treated by drainage, opiates, and nourishment. Recovery took place without peritonitis.

A case of laceration of cervix, complicating epithelioma of same, cured by Emmet's operation, was related by DR. J. T. JELKS.

THIRD DAY, FRIDAY, MAY 2D.

The morning session was occupied by the transaction of

MISCELLANEOUS BUSINESS,

comprising reports from Judicial Council, special committees, and the election of officers; the afternoon by a report on the correlation of pharmaceutical and medical professions, the close relations between pharmacists and physicians, concluding with a denunciation of counter prescribing and the use of patent medicines. The usual resolutions of thanks were then passed, when the Society adjourned to meet the Wednesday before next meeting of the American Medical Association in 1885.

In the evening a complimentary banquet will be tendered by physicians of Little Rock at the Capitol Theatre.

The meeting was a very interesting and successful one, and was in no small degree due to efforts made to that end by the Secretary, DR. L. P. GIBSON, of Little Rock, Ark.

AMERICAN SURGICAL ASSOCIATION.

Fifth Annual Session, held at Washington, D. C., April 30, May 1, 2, and 3, 1884.

(By Telegraph to THE MEDICAL RECORD.)

THE fifth annual meeting of the American Surgical Association began its four days' session in the city of Washington, D. C., on April 30th, at the National Museum. Its officers are: Edward M. Moore, M.D., LL.D., President; Wm. W. Dawson, M.D., First Vice-President; Claudius H. Mastin, M.D., LL.D., Second Vice-President; J. R. Weist, A.M., M.D., Secretary; John H. Packard, M.D., Treasurer; J. Ewing Mears, A.M., M.D., Recorder. The Council is composed of Geo. W. Gay, M.D. (1884); Henry F. Campbell, A.M., M.D. (1885); Hunter McGuire, M.D. (1886); P. S. Connor, M.D. (1887). The Association numbers 93 Fellows, and 3 Honorary Fellows.

The following named Fellows of the Association were present: Drs. S. N. Benham, Pittsburg, Pa.; R. B. Bontecou, Troy, N. Y.; Wm. T. Briggs, Nashville, Tenn.; Wm. A. Byrd, Quincy, Ill.; Henry F. Campbell, Augusta, Ga.; David M. Cheever, Boston, Mass.; P. S. Connor and W. W. Dawson, Cincinnati, O.; Geo. W. Gay, Boston, Mass.; E. H. Gregory, St. Louis, Mo.; Moses Gunn, Cincinnati, O.; C. H. Mastin, Mobile, Ala.; Jas. McCann, Pittsburgh, Pa.; Donald Maclean, Detroit, Mich.; J. Ewing Mears, Philadelphia, Pa.; E. Moore, Rochester, N. Y.; C. B. Nancrede, Philadelphia, Pa.; Basil Norris, U. S. A., Washington, D. C.; Charles T. Parkes, Chicago, Ill.; W. F. Peck, Davenport, Ia.; T. F. Prewitt, St. Louis, Mo.; N. Senn, Milwaukee, Wis.; J. W. Thompson, Puducah, Ky.; L. McLane Tiffany, Baltimore, Md.; B. A. Watson, Jersey City, N. J.

After the reading and approval of the minutes of the last annual meeting of the Association, held in Cincinnati, DR. EDWARD M. MOORE, the President of the Association, delivered

THE ANNUAL ADDRESS

in which he reviewed the progress of surgery, from the cruelties practised in the days of Hippocrates down to the present time.

MEMBERS WHO HAD SIGNED A DOCUMENT CRITICIZING THE CODE OF ETHICS.

THE SECRETARY stated that he had received two letters of resignation from Fellows who had taken grounds against the Code of Ethics adopted by the American Medical Association. Other members who have been called upon to define their position have not yet replied.

After some routine business was disposed of, papers were read as follows:

AN EXPERIMENTAL STUDY OF ANÆSTHESIA,

by B. A. WATSON, A.M., M.D., of Jersey City. His deductions were based upon experiments on 82 rabbits and 25 dogs, and bore out his opinion that ether is by far the safest anæsthetic now known.

Discussion was participated in by Drs. Dawson, of Cincinnati, and Tiffany, of Baltimore, who supported the deductions of Dr. Watson, and by Dr. Maclean, of Detroit, who maintained the safety of chloroform if exhibited with proper precaution, and by Dr. Byrd, of Quincy, Ill., who defended bromide of ethyl and alcohol mixture.

The next paper read was

SOME OF THE DANGERS AND DISADVANTAGES OF ANÆSTHETICS,

by DAVID W. CHEEVER, M.D., of Boston, who favored the use of sulphuric ether, and illustrated the dangers of suffocation, and its symptoms by a plaster cast of the head and neck. He explained the cause of death in many cases to be from debility, etc., and said great caution should be used in the administration to apopletics, drunkards, and persons of debilitated constitutions.

DR. PREWITT, of St. Louis, spoke in favor of ether in all cases, and DR. GAY, of Boston, exhibited an apparatus for giving anæsthetics; he also read a letter giving an account of three cases where anæsthesia had been produced by administering per rectum.

PROFESSOR GROSS being absent, on account of sickness, his paper on

WOUNDS OF THE INTESTINES

was read and commented upon most favorably, as he spoke of the advantages of enlarging the openings, etc.

A resolution was adopted by a rising vote, thanking Professor Gross by telegraph for his valuable paper and hoping for his early recovery.

LIGATION OF COMMON FEMORAL ARTERY,

by L. MCLANE TIFFANY, M.D., B.A. Cantab., of Baltimore, was the next paper, in which he condemned this operation, and was supported in the discussion of the paper by Dr. Campbell, of Augusta, Ga.

The next paper read was upon

TRAUMATIC CEPHALHYDROCELE,

by P. S. CONNER, M.D., of Cincinnati, who gave three interesting cases of this affection.

He was followed by DR. CHARLES B. NANCREDE, of Philadelphia, on

SURGICAL INTERFERENCE IN CEREBRAL ABSCESS,

favoring this method of relieving the brain, on the same principle you should any other organ or part of the body when practicable. He gave the history of a remarkable case in which such interference was successful after the patient had apparently died under the operation.

The first day's session closed at 4 P.M., to meet at 11 A.M. on Thursday, May 1st.

(To be continued.)

EIGHTY-SIXTH ANNUAL SESSION OF THE MEDICAL AND CHIRURGICAL FACULTY OF MARYLAND.

Held at Baltimore, Tuesday, Wednesday, Thursday, and Friday, April 22, 23, 24, 25, 1884.

(Specially reported for THE MEDICAL RECORD.)

(Continued from page 468.)

THIRD DAY, THURSDAY, APRIL 24TH.

THE gentlemen whose names were previously mentioned as recommended for membership by the Examining Board, were elected members.

Drs. I. Bermann and J. D. Arnold presented their resignations of membership.

PROF. WM. PEPPER, of Philadelphia, was elected to honorary membership.

SECTION ON ANATOMY, PHYSIOLOGY, AND PATHOLOGY.

DR. J. W. CHAMBERS, Chairman, presented a report which consisted of a report of

FOUR CASES OF ABSCESS OF THE BRAIN.

CASE I.—German, aged thirty-five, struck on left frontal eminence with dish. Lacerated wound two inches long. No apparent injury of skull. No symptoms except insomnia till tenth day, then epileptic convulsion especially marked in left arm, followed by paresis of same. Convulsions recurred involving right leg, with chilly sensations and rigors. Admitted to City Hospital five weeks after injury with granulating wound at site of injury, paresis and anæsthesia of right arm and leg. Patient in state of hebetude. On fourth day after admission aphasic symptoms noted. On seventh day symptoms of inflammation of brain. He grew worse and died in coma on the forty-sixth day after the injury. On post-mortem examination a necrotic segment of an oval shape, and involving the entire bone at site of injury, an abscess found in left lobe of brain containing three ounces of pus. Immediate cause of death probably œdema of brain due to pressure of abscess.

CASE II.—Similar injury to first case, on right side. On thirtieth day epileptic convulsion, with paresis of left side. Death ensued in coma on thirty-first day. Post-mortem examination revealed similar sequestrum to first case, due to necrotic periostitis. Discoloration of membranes and slight gangrene of brain-substance at site of injury. Pus-cavity in frontal lobe the size of small orange, which had ruptured into the lateral ventricle, causing death by compression. The skulls of Cases I. and II. were exhibited.

CASE III.—Admitted with double croupous pneumonia with symptoms of collapse. On the tenth day pneumonia had disappeared, but a typhoid condition remained with mental aberration, and paralysis of left arm. Two days before death clonic convulsions set in. Temperature, 106° in axilla. Death in coma twenty-six days after admission. Post-mortem examination, no pneumonia, but recent signs of it. No disease of bone or ear. Arteries on right side of circle of Willis plugged with fibrinous clots. Entire white substance of posterior portion of frontal, parietal, and temporal lobes replaced by pus which had ruptured into the lateral ventricle, causing death.

CASE IV.—An adult female, admitted into hospital December 6, 1883, having been attacked, two weeks previously, with severe chills followed tby fever and sweats, believed to be malarial. She also had violent headache. At the time of entrance she had some headache, nausea, and constipation, but intelligence was good and there was no paralysis or anæsthesia observed. Transient unconsciousness supervened, which became, on the second day, permanent. Death ensued December 8th, the temperature having risen to 103°. The autopsy revealed an abscess in the posterior portion of the frontal and entire parietal lobes of the right hemisphere, which had ruptured into the lateral ventricle and produced death.

The above four cases present wide differences in causation and symptoms. Cases I. and II. were clearly due to the localized contusion of the brain following the injuries. Case III. was evidently embolic, while Case IV. was probably idiopathic, or it may have been due to pigmentary emboli which sometimes occur in intermittent fever. Case II. is especially interesting from the absence of all symptoms pointing to cerebral abscess until twenty-four hours before death, which occurred thirty-one days after the injury, and which was the ultimate cause of the abscess. The skulls shown illustrate a form of injury which has either not been observed by others, or, if observed, has been mistaken for fracture. There are no evidences of depression or of fissuring in the external or internal tables. One could hardly conceive of a button of bone being punched out in this manner, and not driven into the substance of the brain. It seems to me that the lesion is the result of a necrotic periostitis following contusion of the bone at the point against which the missile impinged. I have searched all the literature accessible to me, including the "Medical and Surgical History of the War," without finding a similar injury of the bone recorded. I venture to present these specimens, therefore, to the faculty as not hitherto described in surgical works.

A supplementary report from the same Section was presented by DR. JOSEPH T. SMITH, on

THE PROGRESS OF BACTERIAL PATHOLOGY.

He reviewed the work of the German and French Cholera Commissions in Egypt, and instituted the following comparison.

The Germans made 10 autopsies, the French 24; in both the subjects were examined immediately after death. The Germans found the blood free from micro-organisms, and seem to have attached but little importance to its condition, while the French obtained from this fluid their most important results, finding it of a dark color and free from coagulation. In the clear spaces between the blood-globules small elongated bodies were found, and these the Commission look upon as the causative micro-organisms of the disease, though they failed to cultivate them. The Germans found in the intestinal walls the bacilli of cholera; the French a large number of micro-organisms, but could not find in them anything specific.

He also discussed the bacillus tuberculosis question, and concluded that the subject was still in doubt.

SECTION ON OPHTHALMOLOGY, OTOLOGY, AND LARYNGOLOGY.

The report was presented by DR. SAMUEL THEOBALD, chairman, who took for his subject

PREVENTABLE BLINDNESS.

There are 946 blind persons in Maryland. It was estimated that one-half of these cases were preventable, although exact data on this point were not obtainable. They fail to see a physician at the critical period. Ophthalmia neonatorum causes the largest number of cases. Boric acid, gr. v.–x. to ℥j. water should be used at the beginning of the affection; if severe, gr. xviii. to the ounce, or nitrate of silver, gr. j.–iij. to the ounce, may be added. Atropia solution may be applied simultaneously. Scrofulous ophthalmia is also very common among the poor. Treatment should be iron and bark, with sulph. atropiæ, gr. j.–iv. to the ounce, and yellow oxide of mercury ointment, gr. j. to the ounce, applied once daily. Iritis is another cause which should never destroy sight. It is usually treated domestically, often by astringent collyria, under the impression that it is a simple conjunctivitis, until adhesions have occurred when atropine solution is the most important measure in treatment.

Granular ophthalmia destroys ten times as many eyes as it should, and purely because of neglect. It is common in institutions where children are crowded together. Sympathetic ophthalmia is common because of neglect to have a bad eye taken out. Glaucoma also because often overlooked. Acute glaucoma is most often confounded with neuralgia of the fifth nerve, chronic glaucoma with cataract. It occurs among workers in stone, etc., because of a neglect of the simple precaution of wearing glasses. In this class, the cornea is often found dotted over with opacities from injury from particles of stone, etc.

The remedy for the above state of things is for doctors to fit themselves for the treatment of eye diseases, and to instruct patients in regard to the same.

DR. CHISOLM presented a supplementary report from the same Section on the

REMOVAL OF FRAGMENTS OF IRON FROM THE EYE BY THE MAGNET.

This method was first employed in 1874. Dr. Chisolm employed Gruening's instrument, which has a powerful battery, extracting particles when brought within one-fourth of an inch of them.

CASE.—A mechanic, aged twenty-four, was struck in the right eye, March 9th, by a piece of metal, which destroyed his sight. Two hours after the accident he was brought to Dr. Chisolm. There was a small wound in the lower part of the cornea. There was a sense of fulness in the eyeball and stiffness in the lids. The patient was sure there was no iron in the eye. The needle of the magnet was introduced into the wound, and when withdrawn, a stout scale of iron, one-half of an inch long and one-eighth of an inch wide, came away with it. One end of the scale was narrower than the other, and fortunately the former had adhered to the needle. Cold water and atropia constituted the after-treatment. An artificial cataract was left, but in two weeks the patient was nearly well and was allowed to leave the hospital.

In another case, a blow was received on the eye by a mechanic while striking iron, with obliteration of sight. Vitreous humor came from the wound in the ball. Atropine was instilled into the eye, but pain, congestion, and blood extravasation continued. The needle was introduced tentatively into the vitreous chamber through the wound, the patient being placed under the influence of bromide of ethyl, but without result. The symptoms continuing, the ball was enucleated two weeks after the accident. Its contents were found to be disorganized, and a small fragment of steel was found imbedded in a fibrinous clot in the vitreous chamber. The explanation of the failure of the magnet in this case, was that the needle did not approach the fragment sufficiently for its magnetic power to take effect.

There was no report from the Section on Psychology and Medical Jurisprudence, Chairman, Dr. R. Gundry.

SECTION ON MICROSCOPY, MICRO-CHEMISTRY, AND SPECTRAL ANALYSIS.

The report of this Section was presented by DR. A. G. HOEN, of Waverley. His subject was

PHOTO-MICROGRAPHY.

He began by remarking that hitherto photographing with the microscope has been shrouded in a mystery of difficult chemical and technical manipulation. The necessity of having at hand very expensive apparatus, such as heliostat, condensers, various mediums for filtering the sun's heat rays from the actinic, etc., have all been obstacles with the microscopist, who has not the advantages of apparatus offered by a large university or some government institution, such as we have at Washington, heretofore under charge of Col. Dr. Woodward.

The method I am about to describe is so simple and involves so little expense that it lies within the scope of every physician who possesses a microscope, which can be inclined horizontally and which is supplied with a medium one-half and one-fourth inch objective, to take good and accurate photo-micrographs of all interesting pathological and histological specimens as they come to his hands.

It is, of course, understood that the photo-micrographer possesses the necessary knowledge and technic to properly prepare his specimens for microscopic examination, and I find that tissues, as ordinarily cut and stained with carmine or picro-carmine, are admirably adapted for photography with the low and medium powers.

All writers, as far as I can ascertain, advise the use of the objective alone to project the image of the specimen, to be photographed on the ground glass for focussing; this necessitates a camera with a long bellows in order that the proper amplification may be obtained by placing the sensitive plate at a distance of two, three, or four feet from the objective. I find that by using the eye-piece in conjunction with the objective, as good if not better results are obtained, and with a much more compact apparatus.

As a means of recording microscopic observation, nothing is so absolutely true as a good photo-micrograph. Objects drawn with the camera lucida are very beautiful in many instances, but suffer under the delineation of the draughtsman, whose imagination is almost certain to enter and mar his picture.

Those who have worked with the microscope, and compared their observation with the cuts found in the various works on microscopy will readily appreciate this. For perishable preparations, such as scrapings from tumors, vomits, urinary deposits, etc., it is admirably suited, giving a record, which if preserved with care, will last forever.

Pathological histology, which in the past few years has taken so prominent a position, receives another impetus in photo-micrography, and I will venture to say, that in all our medical schools where this important branch of medical science is taught, the projection of good photo-micrographs on a screen by means of a lantern or sciopticon, will be the means, in the near future, of conveying to the student the idea and appearance of the microscopic object and field.

The various manipulations of the wet process were then shown as far as it was possible to do so.

The character of the negatives exhibited, as also that of the prints from these, proved conclusively that good work could be done without the use of expensive apparatus; the illumination of the object in this case being effected by an ordinary mirror, mounted on a movable pivot and fixed to a window-sill having a southern outlook. The use of the blue-glass cell, so strenuously insisted on by most authors, was found unnecessary; a ground glass, however, situated on the under side of the aperture in the stage of the microscope was found indispensable, both to insure an even illumination and to render the rays of light parallel.

The preparation of the plates, such as collodionizing and sensitizing, is so simple that any one who has once seen the process could easily follow. After a proper field has been secured in the microscope ocularly, the instrument placed in connection with the camera, and the illumination properly adjusted, the image is sharply focussed on the ground glass of the camera. The exposure is now made by withdrawing the dark slide from the plate-holder, and according to the lenses used a longer or shorter time is given. The development conducted in the dark room is secured by a solution of iron and acetic acid.

On the whole, the process commends itself for its extreme cheapness, $25 being sufficient to supply the camera, bath, dishes, etc., with all the necessary chemicals used. Another great advantage which the wet plate possesses over the dry is, that in the former a few seconds over or under exposure does not affect it harmfully, whereas in the latter either one way or the other is sure to be ruinous, unless in the hands of a very skilful developer.

VOLUNTARY PAPERS.

DR. F. DONALDSON presented a paper on

THE INFLUENCE OF LUNG RETRACTILITY IN PLEURISY AND PNEUMOTHORAX.

The application of the knowledge acquired by physiological research of the retractile force of the lungs to the

investigation of the pathological conditions of the chest has been strangely overlooked, and this has retarded, in no small degree, our thorough study of diseases of the chest. Marcy, Hutchinson, Salter, Powell, and Le Gros Clarke contributed to our knowledge of the subject.

It was not, however, until 1877, that the amount of lung retractile force was ascertained or even more than guessed at. Stone, of London, then reported his experiments on sheep, from which he concluded that the retractile power was equal to four or five inches of water; he also showed that even when the effusion was considerable in the pleural cavity the lung still possessed contractile force, sufficient to support two inches of water, so that to evacuate the fluid it was necessary to use external suction sufficient to overcome this lung traction.

Garland, of Boston, shortly after published his work on "Pneumo-Dynamics," which gave an immense impetus to the study of dynamics of the chest, and explained satisfactorily some conditions, especially found in pleurisies. Previous to 1843 it was taught that effused pleural fluid obeyed the law of gravity as in open vessels or a vacuum, and hence assumed a horizontal level. M. Damoiseau, in 1843, first showed the fallacy of this, and that the line was irregular, with more or less the form of a parabola. With but few exceptions it has since been acknowledged that the line is not horizontal when the patient is sitting or standing, unless the fluid fill the cavity up nearly to the clavicle.

In 1874 and 1876 Dr. Calvin Ellis described the line as beginning low down on the back near the vertebræ, passing outward and upward obliquely to the oxida, where it reaches its highest point; then in a straight line with a slight descent to the sternum. This has been confirmed by the author and others, and has been designated the letter S curve. As the fluid increases the curve flattens out and no longer presents its S shape after the fluid reaches the second rib, but is then nearly horizontal. Garland explained the reason of the above facts and demonstrated that the physical cause of the condition was the retractile force of the lung, aided by the elastic resistance of the thoracic walls, and the negative presence of the liquid.

The author next considered the influence of the retractile lung-power in the production of displacements of the heart, lungs, diaphragm, intercostal spaces, and liver and spleen, and in the production of pneumothorax.

The paper terminates: "We conclude that lung retractility is not only a powerful physiological force in respiration, but that it also produces modifications of a decided character in diseases of the chest. The practical value of these facts consists in the aid they give us in the differential diagnosis of pleurisy and pneumothorax; the assistance they afford us in estimating the quantity of fluid in the pleural cavity, and the indications they furnish us as to the advisability of resorting to thoracentesis.

Professor G. Stanley Hall, of the Johns Hopkins University, read a paper on

BRAIN LOCALIZATION.

The methods for localization of function in the cells and fibres of the cerebro-spinal nervous system are now many. Among these are new methods of preparing microscopic sections, the method of secondary degeneration, and researches respecting the order in which various bundles of nerves acquire their medullary sheath two or three months before and after birth. Among the results made probable by these methods are the continuity of the pyramidal fibres of the cord to the cortex through the inner capsule without the interruption formerly supposed in the cells of the large basal ganglia. These tracts decurrate only in part, and are the tracts, at least from the arms, of volitional motor innervation. Another result made probable is the relative irritation of the lenticulus nucleus and striate body from the cortex, and of the thalamus from the optic tracts. The cerebellum, whatever other functions it may have, appears to be very largely a commissure between the hemispheres, particularly between the "latent" frontal and occipital regions, the projection system and the "psychic zones" lying between these. Its very intimate connection with the red nucleus, the olivary bodies and the lateral column of spinal fibres is now very probable.

These and other results were illustrated by maps and by Aeby's brain-phantom made of colored cork and wire.

At the conclusion of the address of Professor Hall, a vote of thanks was passed to him.

Fourth Day, Friday, April 25th.

Dr. J. S. Conrad, Superintendent of Matley Hill Sanitarium, read a paper on

SUICIDE WITH PRESENTATION OF MECHANICAL MEANS OF RESTRAINT.

There are but two methods of restraint: 1st. Continued watching by day and night. Few can stand the expense of this, the attendant costing not less than $20 per week, making the patient's expenses altogether $35 to $40 per week. 2d. The use of gloves. Dr. Conrad has much more confidence in the latter than the former. He had known a patient attempt to choke herself with fragments of a night-gown, and a man to cut his throat with a pocket-knife under the sheet while the attendant sat near by. He uses the gloves only at night. He then exhibited the gloves he uses, which are a sort of mitten, fastened securely around the wrists, and to the extremity of which are attached rings by means of which the hands are securely fastened to a brace going around the waist and over the shoulders. The gloves are perforated in order to obviate unpleasant sweating of the hands.

A paper by W. Howell, Fellow of the Johns Hopkins University, and F. Donaldson, Jr., M.D., some time Graduate scholar in Biology in the same, was read, entitled,

THE MAXIMUM VOLUME OF BLOOD SENT OUT BY THE LEFT VENTRICLE IN A SINGLE BEAT, AND THE INFLUENCE OF VARIATIONS IN VENOUS PRESSURE, ARTERIAL PRESSURE, AND PULSE-RATE UPON THE WORK DONE BY THE HEART.

The authors undertook to determine this question, hitherto unsettled, and according to Foster not to be accurately determined by directly measuring the blood ejected from the left ventricle of a dog's heart isolated by Professor Martin's method.

The results fall under four heads:

1. The maximum quantity of blood which can be thrown out from the left ventricle at a single systole. The method of working in determining this quantity was to increase the amount of blood flowing into the right side of the heart by raising the supply flask connected with the superior vena cava until further increase of pressure and quantity of blood flowing into the right side of the heart caused no increase in the quantity of the blood sent out from the left ventricle. The main result of these experiments may be stated as follows: With a mean pulse-rate of 180 per minute in the dog, the mean ratio of the maximum weight of blood pumped out from the left ventricle at each systole to the body weight is $\frac{1}{85}$ or .00117. The maximum outflow from the left heart was obtained in all cases at or below a venous pressure on the right side of 60 ctm. of defibrinated calf's blood (46 mm. of mercury). From one experiment taken at the normal pulse-rate of the dog (120 per minute), the ratio under these circumstances is $\frac{1}{700}$ or .0014. Reasons were given for the belief that the left ventricle during life is distended to about its maximum capacity. Owing to differences in pulse-rate between the dog and

man no inference can be safely made from these results to the case of man.

2. Arterial pressure was varied by raising or lowering the end of the outflow-tube leading from the aorta. Such variations from 58 to 147 mm. of mercury have practically no effect upon the quantity of blood sent out from the left ventricle, and it seems probable that within these limits at least the force of the ventricular contraction is not influenced by variation in arterial pressure, but remains maximal throughout.

3. Variations of venous pressure showed a marked influence of the latter, the outflow from the left ventricle increasing with it, but not proportionately up to the point of maximum work.

4. The rate of beat of the heart was varied in these experiments by heating or cooling the blood supplied to it. In this way the pulse-rate was changed in one case from 228 to 77 beat in a minute, and back again to 140 in a minute, and in another case the variation was equally great. The general result may be stated as follows: A diminution of pulse-rate, brought about by lowering the temperature of the blood flowing into the heart, causes an increase in the quantity of blood thrown out from the ventricle, and *vice versa*. The changes in the outflow from the ventricle at each systole are not, however, inversely proportional to the changes in the pulse-rate. The total outflow and the total work done during any given period of time decreases with a diminution of pulse-rate, and increases with an increased pulse-rate.

Dr. L. McLane Tiffany, Professor of Surgery, University of Maryland, read a paper on

THE RESULT OF OPERATIVE MEASURES FOR RECTAL CANCER—REPORT OF CASES.

The author has operated five times, three times by left lumbar colotomy for the relief of suffering and to avert impending death from obstruction; once in same situation for relief of pain without complete obstruction, the passage of fæcal matters causing unutterable agony; and once the lower rectum with anus was excised for epithelioma.

The results of four of these cases (those of the fifth being given in the *American Journal of the Medical Sciences*, October, 1877) are as follows:

Case II., reported in the *American Journal of the Medical Sciences*, October, 1877.—Patient lived fifteen months after the operation, twelve of which were rendered tolerable by the diverting of fæcal discharges through the loin and comparative rest afforded the rectum. Post-mortem examination showed the rectum for seven inches in entire circumference to be the seat of an epithelioma and adherent to neighboring parts.

Case III. (*Trans. Med. and Chir. Fac.*, 1882), left lumbar colotomy.—Patient survived seventeen months. At time of operation obstruction was complete and terrific pain accompanied. Immense and immediate relief was secured which continued until death by asthenia.

Case IV., left lumbar colotomy (*Maryland Med. Jour.*, August, 1883).—Patient died of pelvic cellulitis after abortion, the fœtus being supposed to have reached the fourth month. Complete obstruction with great suffering preceded operation. The presence of the fœtus in no wise complicated the colotomy.

Case V. (*Trans. Med. and Chir. Fac.*, 1882), excision of lower rectum and anus.—February 27, 1882, patient still living. Has been examined several times; at last examination, November, 1883, no sign of recurrence; rectum seemed in all respects healthy, and there was no incontinence of fæces. The last named result seemed to be due to partial prolapse of the mucous membrane of the anterior rectal wall forming a fold and so closing the anal aperture. There was no untimely escape of gas. The failure to recur justifies the hope that an absolute cure may be obtained. Microscopic examination of the excised rectum showed that it was clearly malignant.

Dr. Charles G. Hill read a paper entitled,

THE COMMON SASSAFRAS A POTENT DRUG AND A DANGEROUS NARCOTIC.

Dr. Hill's attention was called to the narcotic properties of this supposed harmless agent by a case in which a boy took "two large swallows" from a bottle of the oil of sassafras, under the impression that it was good for an eruption from which he suffered. Coma supervened, resembling that in poisoning by opium, except that the pulse was rapid, and pupils normal. Prompt emesis removed the remaining oil from his stomach, and consciousness soon returned.

Acting on this suggestion the author had made experiments with the oil of sassafras upon mice, cats, and dogs. Injected hypodermatically, or given per os, in the mouse it caused stiffness, convulsions, and death. In the cat and dog insensibility and paralysis were noted.

Dr. Hill also ascribed strong antiseptic properties to the oil of sassafras, which he estimated to be half as great as those of carbolic acid.

Dr. John N. Mackenzie, Surgeon to the Baltimore Eye, Ear, and Throat Charity Hospital, reported

CASES OF REFLEX COUGH DUE TO NASAL POLYPI, WITH REMARKS.

The author referred to a paper on "Naso-aural Catarrh," read by him before the Faculty at the last annual meeting, in which he had called attention to the frequency of reflex cough as a symptom of a number of pathological conditions affecting the turbinated bodies of the nose, especially the erectile tissue overlying the posterior extremity of the inferior turbinated bone, and had insisted upon the importance of local treatment in such cases.

The author then detailed several cases in which reflex cough was occasioned by polypi in the nostrils, and was dissipated by their ablation.

He then continued: "The dependence of asthmatic attacks upon the presence of polypi in the nasal chambers is sufficiently common, but the important rôle of the latter in the production of cough has been apparently overlooked. At the time of publication of my thesis but one such case had been recorded. Within the past year four similar ones have come under my notice. So far as my experience goes, it would appear that the cough is only present when the growths spring from or are brought in contact with a portion of the erectile area, and generally its posterior portion, or in other words it is only when the polypus acts as a mechanical irritant by causing engorgement of the mucous membrane and erectile cells, and thereby exciting reflex action that the explosive cough is produced. The probability, therefore, of cough excitation will depend, other things being equal, upon the position of the growth. Thus, a polypus high up in the nostril may fail to give rise to the reflex act, which its presence low down in the nasal fossa would excite. Or a movable growth in the more anterior portion of the nasal chambers may awaken no reflex when the head is in the vertical position, whilst when the vertical diameter of the nostril becomes horizontal, as in the recumbent position, the growth may by force of gravity be brought in contact with the posterior portion of the nostril, or, what is the same thing, with the most excitable spot in the sensitive area.

In the same way the asthmatic attacks which have been observed in connection with nasal polypi may be explained. At all events such an explanation is more plausible than the assumption which may be urged of direct nervous irritation starting from the polypus itself, since the ordinary mucous polypus is destitute of nerves, and can, therefore, only awaken reflex phenomena in an indirect or mechanical manner. Moreover, I have tried to obtain the reflex by direct stimulation of the growth, but so far without success.

Finally, I wish to observe that the change in position

of the polypus does not depend altogether upon the law of gravitation, but in some instances may be due to an increase in volume, either from local irritation of various kinds or from the well-known hygroscopic character of the gelatinoid outgrowth. The augmentation in bulk thus brought about would obviously bring it into contact with parts which in its original position would not be encroached upon, and therefore not subjected to the pressure and irritation which it might occasion.

In regard to the mechanism of the reflex two explanations suggest themselves: either the assumption of the correlation of the nasal erectile area and the interarytenoid space (laryngeal cough centre) by virtue of which irritation and vascular engorgement of the former may lead to hyperæmia of the latter through the medium of the vaso dilator nerves through the superior cervical ganglion and the consequent production of a laryngeal cough, orthe direct transmission of the irritation through the spheno-palatine nerves to the medulla and its immediate reflection outward to the muscles concerned in the expiratory act.

"Some Remarks on a Recent Epidemic of Typhus at Bay View Hospital," was the title of a paper by DR. GEO. B. REYNOLDS, which, in the absence of the author, was read by title and referred to the Publication Committee.

DR. EUGENE F. CORDELL, Professor of Materia Medica and Therapeutics, Woman's Medical College of Baltimore, read a paper entitled

CONGENITAL ANOMALY OF THE FŒTAL HEART, CONSISTING OF THE ABSENCE OF ONE OF THE SEGMENTS OF THE MITRAL VALVE IN WHICH A SYSTOLIC MURMUR WAS HEARD BEFORE BIRTH.

The anomaly in question was found in the autopsy of a new-born child which died cyanotic one hour after birth, respiration having never been thoroughly established. The mitral deficiency was the only abnormality present. The anterior segment was largely developed and was attached by its sides to several chordæ tendiniæ, which sprung from two fleshy columns; the latter were connected with the outer surface of the ventricle. The condition seemed to be due to defect in development and not to pathological causes. For some hours before birth there had been heard, in this case, in the upper and left side of the abdomen a distinct systolic fœtal heart murmur, which was presumed to be located at the mitral orifice. The rarity, if not uniqueness of such an abnormality, and the ignorance and obscurity of such sounds, were shown by references to authorities. The diagnosis will probably always be problematical.

In a paper

ON CERTAIN PRACTICAL POINTS IN THE PATHOLOGY, CLINICAL HISTORY, AND TREATMENT OF CANCER,

by DR. GEORGE ROCHE, M.D., Professor of Hygiene and Clinical Dermatology, College of Physicians and Surgeons, Baltimore, the author spoke of the loose way in which the term cancer is used, being applied to both innocent and malignant growths. The invariable anatomical condition is epithelium out of place. This is due to an indefinable constitutional predisposition more marked in the white than black race. Where the constitutional predisposition exists, local irritation is alone needed to produce the disease.

The author illustrated from his practice the conversion of innocent epithelial growths into malignant growths. Pain and ulceration may be entirely absent in cancer, and induration is not characteristic taken alone. Induration of glands is not constant, and it is also to be remembered that this may be due to simple inflammation and irritation as well as infection. The author strongly urged extirpation as the rule, repeated in case of recurrence. He strongly recommended the use of arsenic, pushed to physiological limitation, to prevent the tendency to epithelial degeneration.

RESULTS FROM THE INVESTIGATION AND STUDY OF COW-POX,

was the title of a paper by DR. ST. GEORGE W. TEACKLE, State vaccine agent. The author referred to a paper read at the last annual meeting of the Faculty, entitled, "A Case of Spontaneous Cow-pox," etc., and the exhibition at that time of a heifer successfully inoculated with crusts therefrom. He reported that he had obtained only negative results from crusts from this heifer. This had led him to investigate the subject and he had thus arrived at the conclusion that there is no such thing as spontaneous cow-pox, but that cases mistaken for it are constantly occurring especially during visitations of small-pox. That consequently Jenner was laboring under a delusion and that a fresh and reliable virus can always be obtained by direct inoculation of the heifer with small-pox virus whenever that disease exists, and that this is a much more perfect and convenient method. This completed the voluntary papers.

Dr. L. R. Coates offered his resignation and Drs. A. M. Belt and R. M. Hall, of Baltimore, were elected members.

The rest of the business was routine and much of it is not of sufficient interest to report in THE RECORD.

DR. TIFFANY reported from the Committee on Legalizing Dissection that the present law in Maryland is ample, but that the law officers of the city are not disposed to enforce its execution. Consequently recourse had been taken to the courts, where an early decision, favorable to the profession, is expected.

DR. MORRIS, from the committee appointed to watch the progress of the supposed case of spontaneous cow-pox, presented to the Faculty a year ago by Dr. St. George W. Teackle, State vaccine agent, reported that it was not a true vaccinia but a spurious form, well-known since the days of Jenner.

Drs. Rohe, Morris, and Stewart were appointed a committee to carry out the sanitary suggestions contained in the President's address.

DR. T. BARTON BRUNE reported in behalf of the Directory for Nurses, that the Directory had met with lack of support and even hostility at the hands of the Faculty. Forty nurses, only one of whom was a wet-nurse, had registered: thirty-three were white and seven colored; thirty-three females and seven males. The committee was authorized to use surplus funds on hand to advertise the Directory.

Committee to Draught Law in Regard to the Rights of the Insane was continued, as also Committee on Sale of Poisons, and Committee to Memorialize the Legislature in Regard to the Care of Feeble-minded and Imbecile Children.

Upon recommendation of the Publication Committee, Dr. Quinan was given authority to publish, at his own expense, a second edition of his "Medical Annals of Baltimore."

DR. MICHAEL gave notice of his intention to move an amendment to the constitution, substituting the word "persons" for "gentlemen" in the clause relating to membership, the object being, as stated by him, to render women eligible to membership.

ELECTION OF OFFICERS.

The election of officers for the ensuing year was then proceeded with and resulted as follows: Dr. Thomas S. Latimer, President; Drs. John R. Quinan and J. E. Atkinson, Vice-Presidents; Dr. G. Lane Taneyhill, Recording Secretary; Dr. Robert T. Wilson, Assistant Secretary; T. B. Brune, Corresponding Secretary; Dr. W. F. A. Kemp, Treasurer; Dr. Richard Thomas, Reporting Secretary; Drs. Williams, Michael, Stewart, Tiffany, and Lynch, Executive Committee.

The President then announced the members of the various standing committees and sections, delegates to various societies, curator, etc., after which the Faculty adjourned *sine die*.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, April 9, 1884.

GEORGE F. SHRADY, M.D., PRESIDENT, IN THE CHAIR.

PEDUNCULATED MYXOFIBROMA OF THE LABIUM MAJUS.

DR. H. J. GARRIGUES presented a specimen accompanied by the following remarks and history.

Pedunculated tumors hanging from the labia are probably rather rare, since neither Thomas, nor Emmet, nor Barnes mention them in their treatises on gynecology. In the large German work edited by Billroth is found a figure representing a case observed in the policlinic of Kœnigsberg, which is called a fibromyoma.

The present specimen comes from a virgin thirty-four years of age, pale and dyspeptic, and affected with eczema of the scalp and the hypogastric region. She noticed it first nine years ago. The tumor was attached to the middle of the outer surface of the left labium majus by a pedicle, which, when stretched by the weight of the tumor had the length and thickness of an index finger. The tumor itself measured eight by seven by four centimetres and had the shape of a flattened pear. It had the color of the surrounding skin, was somewhat elastic, and had an even surface covered with large peeling-off epidermis scales. At the lower end was found a slough of the size of a fifty-cent piece, surrounded by a suppurating line of demarcation from which emanated a very offensive odor.

In the pedicle was felt a pulsating artery of the size of the umbilical arteries. In it, and near it, on the labium were seen enlarged and varicose veins. The tumor was not the seat of spontaneous pain nor sensitive on pressure. I removed the growth by putting a clamp on the pedicle near its upper end, forming two small skin flaps, cutting the deeper tissues off at the level of the clamp, tying the artery and uniting the flaps by two catgut sutures. It healed easily, and the linear cicatrix was found on a level with the surrounding tissues. Supposing it to be a fibrous tumor, I was much surprised to see how much blood could be pressed out of it, and oozed out from an incision made into its interior. But the microscopical examination accounted for this. It was covered with a very thick epidermal layer covering normal papillæ. Nowhere hair-follicles or sweat-glands were found. The underlying tissue was formed of fibrillar connective tissue, with many interspersed round and oval cells. In some places the reticulum of connective tissue became quite delicate, and the number of cells was increased so much as to form myxomatous tissue. Everywhere were found arteries and veins and in some places a few fat-cells.

CYST OF THE PAROVARIUM SIMULATING PREGNANCY.

DR. E. M. CUSHIER presented a cyst of the broad ligament with the following history: E. S——, aged sixteen years; menstruated at fourteen; menstruations regular during first year. Last summer suppression of menstruation for nine weeks, then profuse, a flow lasting for two weeks. Since last September irregular hemorrhage, at times profuse. Two weeks previous to present time, hemorrhage so profuse that the physician who was called found it necessary to tampon vagina. The patient was sent to Infirmary for Women and Children on March 26th. Continuous flow had then existed for five weeks. The patient presented an almost exsanguinated appearance. She complained of nothing but weakness. The flow from vagina persisted, and there was a frequent escape of large soft clots. Examination per vagina showed a large cervix and patulous os, and there was a tumor in median line continuous with uterus, and reaching half way to umbilicus. Patient admitted possibility of pregnancy having existed, and the tumor was taken for an enlarged uterus, probably containing some abnormal product of an interrupted pregnancy. Laminaria tents were introduced, all necessary antiseptic precautions being taken, for purpose of dilating and exploring uterus, hoping by this means to ascertain and remove cause of hemorrhage. The result of exploration, however, was negative, absolutely nothing being found to account for hemorrhage. The patient, who had begun to have an elevation of temperature previous to any operative procedure, began to vomit as soon as tents were introduced, and on the night of the day of exploration diarrhœa was added to the vomiting. The fever became more pronounced, and the vomiting and diarrhœa resisted all efforts to check them. On the third day following exploration the patient died.

Autopsy, fourteen hours after death.—Upon opening abdomen the tumor which was taken for the uterus was found to be a parovarian cyst of right side, with unusually thick and firm walls. The broad ligament was stretched and twisted upon itself in such a manner as to throw the tumor on the top of the uterus, which it closely capped, seeming a part of the organ itself. The uterus was large, measuring three and one-half inches, and the body rounded. The membrane was thickened and congested, but there was no trace of a decidua, nor were there any fungosities upon its surface which could account for the hemorrhage.

With the exception of an old pleuritis, and moderate stenosis of mitral valves, there were no remaining pathological conditions of importance. In view of the above facts it is believed that the hemorrhage was due to twisting of the pedicle formed by broad ligament, and which included the Fallopian tube and numerous large vessels belonging to the pampiniform plexus, thus interrupting the return current from uterus, and that death occurred as a result of an acute anæmia supervening upon a condition, already existing, of most profound denutrition, the result of previous prolonged hemorrhage, and manifesting itself in symptoms on the part of the stomach and the intestinal canal.

DR. GARRIGUES thought there was one point of particular interest in the case, and that was to determine whether or not pregnancy existed. As to the clinical condition he would ask, first, what was the color of the mucous membrane of the vagina, and second, what was the condition of the mammæ, especially whether or not there was any increase in the depth of the dark color and enlargement of the areola. According to his experience, the earliest sign of pregnancy was to be found in the areola, together with somewhat doubtful gastric symptoms. He had diagnosticated pregnancy as early as the sixth week, by simple inspection of the areola. The limiting line loses its sharpness early, and always upward and outward, becomes indistinct, and the dark color begins to shade out into the color of the surrounding part, and at the same time there is some increase in the volume of Montgomery's glands. The violet color of the mucous membrane of the vagina he had also found to be a very reliable symptom of pregnancy.

Dr. Cushier had said it was suggested that the hemorrhage might be due to abortion. In such cases there were two possibilities: (1) that the decidua would be present, or (2) that it would have been cast off. If the abortion had been complete, he thought there would not have been any considerable hemorrhage. The cases in which severe hemorrhage occurred were those in which there was incomplete abortion, usually the ovum was thrown off and the decidua remained. So far as Dr. Garrigues could determine there was no decidua remaining upon the specimen. The specimen was very interesting in one respect, and that was the development of a cyst of the broad ligament which had become sufficiently pedunculated to allow the pedicle to become twisted.

DR. CUSHIER said that the mucous membrane of the vagina and vulva did not present the violet tint, but had the most pallid color. She was unable to say positively whether or not there was any change in the areola of the breast.

DR. GARRIGUES remarked, with reference to the cause

of death, that it was most likely of septic origin. He had seen several cases where death had followed rather quickly the introduction of tents, and he thought that, as a means of diagnosis, their use should be limited as much as possible. It had been claimed that laminaria tents, prepared antiseptically, could be used with comparative safety, but with their use he had not had any experience.

DR. CUSHIER said that laminaria tents were used in this case, prepared antiseptically, as they had been in the hospital for two years, where they had been used as occasion required and without any unfavorable results. The tents, moreover, were not introduced for purposes of diagnosis, but to ascertain, if possible, the cause of the hemorrhage, supposing it to be due to some product of conception remaining within the uterus, or, pregnancy not existing, the presence of fungoid degeneration perhaps, or possibly a polypus. She thought all the precautions were recognized in the introduction of the tents, and believed that in this case their use could not have been avoided.

DR. GARRIGUES remarked that what he had said concerning the use of tents was not in any way intended as a criticism upon the treatment of the case.

DR. CUSHIER asked Dr. Garrigues what he would do to control the hemorrhage in such cases.

DR. GARRIGUES replied that he would first use the tamponade. He would also try to find out, with reference to the presence of a tumor, the existence of pregnancy, etc. Having reached the conclusion that there was no pregnancy, he thought that by means of the sound he could determine whether or not there was anything within the uterus. Perhaps it would be necessary if a polypus was found to introduce a tent for the purpose of dilating the cervix preparatory to its removal. If a portion of the decidua remained, it could be removed by means of Thomas' curette without the use of tents. He did not wish, however, in any way to criticise the treatment instituted in Dr. Cushier's particular case.

DR. ROBERT NEWMAN referred to a case which he had already reported to the society. In this instance there was a distinct *cyst of the fallopian tube*, and there was also constant hemorrhage, as in Dr. Cushier's case.

DR. PUTNAM-JACOBI said the patient began to have fever before the introduction of the tents, and that, with the intense anæmia of the uterine walls, served to explain the irritability of uterine fibres. But the appearance of the heart did not seem to give evidence of a recent condition, for the heart was entirely full of a dense colorless clot. Unless this clot was formed in consequence of septic poisoning, the question could arise whether it was not due to intense anæmia producing exhaustion. Acute exhaustion from hemorrhage for two days preceding death, occurring in a heart in which there previously existed endocarditis, rendered it probable that the patient died of cardiac failure which facilitated the formation of a thrombus, and that there was no evidence of septic disease at all.

DR. GARRIGUES offered another suggestion with reference to the possible cause of the hemorrhage, namely, that it may have, perhaps, been due to the simple endometritis which existed, at least the endometritis evidently present should be taken into consideration in studying the etiology of the case.

DR. CUSHIER asked if hemorrhagic endometritis occurred without fungus degeneration.

DR. GARRIGUES replied that while the most common cause of hemorrhagic endometritis was the presence of the fungoid excrescences, that condition was entirely afebrile, while here we had to do with a febrile disease.

DR. CUSHIER remarked that there was hemorrhage for a long time, and whether elevation of temperature was present during that time or not they were unable to ascertain; but at the time the patient was first seen there was no elevation of temperature, and the hemorrhage still persisted.

CARCINOMA OF THE BONES.

DR. F. FERGUSON presented microscopical slides illustrating carcinoma of the sternum, ilium, and clavicle. The disease primarily began in the breast and involved the ribs and also the vertebræ.

Dr. Ferguson also presented fresh specimens of

GENERAL TUBERCULOSIS, WITH TUBERCULOSIS OF THE MUCOUS MEMBRANE OF THE UTERUS.

They were removed from the body of a woman twenty-seven years of age, a native of England, who gave a good family history, and who, up to the first week of March, 1884, had been always healthy. At that time she complained of nausea, sharp aching pains about the body and limbs, loss of appetite, and general weakness.

On admission the patient was languid, did not want to talk, and laid perfectly quiet with eyes half closed. Physical examination was negative except the presence of numerous small moist râles at the base of each lung. Her bowels were constipated and she vomited occasionally. Her tongue was dry, cracked, and bleeding. Her quiet condition gradually merged into stupor, which deepened until death, which occurred one month after the inauguration of her first symptoms.

Her temperature ranged from 99° F. to 102° F., generally a degree higher in the afternoon. Her urine, voided involuntarily, was negative both chemically and microscopically. She coughed but very little, and that shortly after admission.

MYOCARDITIS.

DR. FERGUSON also presented five hearts, illustrating myocarditis or fibroid induration of the heart. In some the lesion was associated with endocarditis and also with pericarditis, while in others it occurred alone. In one specimen it was seen in the left ventricle near its apex. In none of the cases in which he had had an opportunity to make an examination had he been able to find the lesion in the right side of the heart. It occurs most frequently in the left side of the heart near the apex, and as a rule is associated with endocarditis and pericarditis.

Two of the specimens were accompanied by the following histories.

1. Heart from an unknown woman, about sixty years of age, who died comatose on February 20, 1884. There was extensive hemorrhage into the lateral third and fourth ventricles; the basal ganglia were destroyed on the left side. The vessels at the base presented the lesions of atheroma and endarteritis obliterans. The kidneys were in the condition of chronic diffuse nephritis. The heart is hypertrophied, the left ventricular wall being especially thickened. The endocardium is thickened and there are extensive areas of fibrous tissue in the left ventricular wall. These areas of myocarditis are more plainly seen near the apex of the heart. The cusps of the aorta are thickened and slightly retracted with a deposition of calcareous material. The aorta presents all stages of atheroma.

2. Heart from a man seventy-five years of age, a native of Germany, who died in New York Hospital on March 28, 1884. His heart-sounds on admission were inaudible, pulse at the wrist was imperceptible. He had pulmonary œdema and dyspnœa. He had œdema of legs, scrotum, and prepuce, and fluid in both pleural cavities to the eighth rib. His cerebration was apparently unimpaired; he spoke broken English; his utterances were unintelligible, and no previous history could be obtained from him. His urine measured from eighteen to twenty-four ounces per day, with specific gravity of 1.010, and contained albumen, hyaline and granular casts. He died eleven days after admission into the hospital. His heart action was irregular and continued extremely weak until his death. The coronary arteries are extensively calca-

reous, and also present the lesion of endarteritis obliterans.

Dr. Ferguson said, with reference to the clot in the heart presented by Dr. Cushier, that, whatever might be its cause, such clots were very frequently found at autopsy. One physician in a large hospital had withdrawn a certain quantity of blood from the right ventricle during life, and then introduced an alkaline solution to prevent the formation of clot, and yet at the autopsy a well-formed clot was found. From his experience in making autopsies and from experiments performed he had come to regard clots of like appearance as post-mortem in character.

Dr. Putnam-Jacobi had seen tuberculosis over the peritoneum of the uterus, but thought it much more rare for tubercle to develop upon the mucous surface. She would ask whether or not fibroid induration of the heart was not often due to syphilis?

Dr. J. Lewis Smith asked if the absence of cough was not due to the semi-comatose condition of the patient?

Dr. Van Santvoord remarked that it was not very uncommon to find marked changes in the apex of one lung without any clinical history of either cough or expectoration.

Dr. Ferguson said that fibroid induration was frequently described as occurring in syphilitic patients. Exactly the percentage he did not know. In most of the cases in which he had seen it the patients denied syphilitic history, and almost without exception they were sufferers more or less from rheumatism, and all were the subject of chronic diffuse nephritis. He did not regard them as due to syphilis, although it is generally attributed to that disease.

ACUTE DIFFUSE PERITONITIS—THROMBOSIS OF THE UMBILICAL VEIN.

Dr. J. Lewis Smith presented specimens removed from the body of an infant fourteen days old, who died of peritonitis in the New York Infant Asylum. The child was born natural, and there was no evidence of septic poisoning in the mother. The nurse stated that for about a week prior to his visit the baby had been unusually fretful, and there was a slight febrile movement, although its bowels were regular. The resident physician had diagnosticated peritonitis before Dr. Smith's arrival. When he saw the patient there was great distention of the abdomen; there seemed to be tenderness upon pressure. Examination of all other parts of the body seemed to be negative. The umbilical cord separated on the seventh day. The rectal temperature on the day of his first visit was 102.4° F., and the day before, 100.6° F. The resident physician stated that the surface of the umbilicus, when the stump dropped, looked somewhat raw, and that there had been a slight oozing of purulent liquid. The child died on the morning of the fifteenth day of its age. Dr. W. H. Welch made the autopsy, twenty-six hours after death, and in his report diagnosticated acute diffuse peritonitis with thrombosis of the umbilical vein. The abdomen was greatly distended. Six ounces of turbid serum were removed from the cavity, containing yellowish flakes of fibrin. There was a fibrinous deposit along the transverse fissure of the liver, and on the under surface of the liver, and along the course of the umbilical vein. There was no marked congestion of the peritoneum. A number of lymphatic vessels filled with pus could be seen underneath the peritoneal surface of the diaphragm, showing a pleuritis could occur in such cases if the patient lived a sufficient length of time. The umbilical vein was filled from the navel to the transverse fissure of the liver with a grayish material. In places there was broken-down purulent thrombus, which could be traced the entire length of the umbilical vein. It did not extend into the vena cava or portal vein, but was closely adherent to the walls of the vessel. The umbilical vein itself was thickened from the disease. The heart exhibited hemorrhage into the substance of the valve. The pericardial cavity contained more than the normal quantity of serum, with a few flakes of fibrin. The lungs showed hemorrhagic spots on the posterior surface, and the bronchi contained brownish mucus. There was no evidence of pneumonia in the lungs. The kidneys were hale and showed small ecchymoses in the mucous membrane and a few on the surface. There was a yellowish turbid fluid in the bladder. The ovaries and uterus were normal. The pancreas and the suprarenal capsules were normal.

Dr. Smith remarked that puerperal fever had occurred in the maternity wards of this institution within the last three or four weeks, and that the wards had been closed for a time. Two infants had died of peritonitis, and associated with it was erysipelas. Whether the existence of erysipelas had any connection with the recent occurrence of puerperal fever he did not know. The mothers presented in these cases no abnormal symptoms whatever. Heretofore it had been a puzzle to him as to how peritonitis could occur from thrombosis of the umbilical vein; but Dr. Welch thought it could be explained by micrococci passing through the walls of the umbilical vein and causing peritonitis.

Dr. W. P. Northrup had met with four cases of peritonitis occurring in children. In one case the child was nine days old, in one eleven days, in one twenty days, and in another two months old. In all of the cases the umbilical vein was examined, and in none was there any thrombus found. In one case there was an abscess of the shoulder, and that was the only thing which could at all attract attention. All the viscera were apparently perfectly healthy, nothing existing except tubercular peritonitis, so far as could be discovered, and in all, both the visceral and the parietal peritoneum presented all the lesions of acute diffuse peritonitis. Nothing was discovered concerning the condition of the umbilicus, as necessarily their attention was directed to this part. There was no relation between the cases and erysipelas and puerperal fever.

Dr. Smith remarked that it was a well-known fact that new-born children are especially liable to peritonitis, and in a considerable proportion of cases there is cause for it in the umbilical vein. He believed, however, that in other cases, as in the one to which he had alluded in which erysipelas occurred, there is nothing wrong with regard to the umbilical vein.

Dr. Putnam-Jacobi said that Henoch held that all cases of peritonitis occurring in the new-born were due to puerperal infection, and that it must be from the umbilicus, as usually the affection was accompanied by thrombus of the umbilical vein. It seemed to her that there could be no question with regard to the association of these conditions, but she was unable to understand why sepsis was transmitted by micrococci going through the umbilical vein to the peritoneal veins. She had supposed there was a marked lymphangitis, and that septic micrococci were found in the lymphatic vessels, and that it was, strictly speaking, a lymphangitis, such as was commonly seen in puerperal women. As peritonitis may occur by simple absorption of poison which does not leave any trace, she supposed that with careful search one might find septic micrococci, and was unable to see why, in Dr. Northrup's cases, the absence of thrombus of the umbilical vein excluded septic infection any more than it would from the mother who dies with painless septic infection without phlebitis and inflammatory peritonitis. In the case in which there was peritonitis, and also an abscess in the shoulder, she was unable to see how the conclusion could be avoided that there was septic absorption. Schultze had pointed out that there was a greater liability to septic infection in children who had been born asphyxiated, as under such circumstances aspiration is imperfectly performed, the veins collapse imperfectly, and thrombi are formed and furnish material for septic poisoning. She would ask Dr. Smith

if there was any evidence that the child was asphyxiated when it was born?

Dr. Smith replied that there was no history of asphyxia. He further remarked that the greatest amount of fibrinous exudation was along the course of the umbilical vein and the peritoneal covering.

Dr. Northrup remarked that his four cases were distributed over a period of six or eight months; that all of the children were brought in as foundlings, and as a matter of necessity had been subjected to more or less of exposure.

The Society then went into executive session.

THE PRACTITIONERS' SOCIETY OF NEW YORK.

Stated Meeting, April 4, 1884.

Beverley Robinson, M.D., President, *pro tem*, in the Chair.

CAPILLARY PULSATION.

Dr. G. L. Peabody exhibited a patient in whom could be seen the capillary pulsation which sometimes accompanies aortic regurgitation. The patient was an Irishman, aged thirty-six, who was admitted to Bellevue Hospital on January 23d, and is still under treatment in that institution. Two months before his admission he began to notice that he was short of breath on making any severe exertion, and even on going up stairs or lifting any heavy weight. He also suffered from cardiac palpitation, etc., and in short gave a good clinical history of serious valvular disease.

Examination showed that he had consolidation at the apex of each lung, and that his aortic valve was both obstructive and insufficient. Both murmurs significant of this condition were loud and distinct, but from the fulness and force of the pulse it is presumed that but little obstacle to the egress of blood existed. It was to the feel a distinct Corrigan pulse. Besides this there was hypertrophy of the left ventricle, and there were the usual physical and rational signs of visceral congestion, both thoracic and abdominal. The chief interest in the case was in the fact of the capillary pulsation.

When the patient first came under observation, synchronously with the radial pulse the vessels of the skin, as seen through the nails, were filled with blood, immediately thereafter becoming quite anæmic. The alternating pink and white colors accompanying respectively the systole and diastole were very evident, and the same phenomenon could be produced anywhere on the surface of the body at will, by merely causing an artificial hyperæmia by friction. At this time pulsation of the retinal vessels was also visible with the ophthalmoscope.

During the past two months he has depreciated perceptibly. He has had an attack of dry pleurisy, his phthisis has advanced; cough and dyspnœa have given him wakeful nights, and his pulse has become much weaker and more frequent. At present he labors under considerable excitement and his heart is beating quite feebly, 120 times in the minute. During the past two months evidences of failure of the hypertrophy to compensate for the valvular lesion have become more and more pronounced, and with the supervention of this condition the capillary pulsation has become less distinctly visible. At present it can usually be demonstrated by making him walk rapidly once or twice the length of the ward.

A few minutes after allowing him to drink a glass of whiskey, the capillary pulse under the nail was demonstrated to those present at the meeting.

The President asked if the phenomenon did not depend upon some individual peculiarity, such as special elasticity of the capillaries. He had seen cases of aortic regurgitation frequently, but thought this condition occurred very rarely.

Dr. Peabody thought there was no reason to suppose that the patient's capillaries differed from those of other people, except in the presentation of this phenomenon during the performance of their function.

Dr. Kinnicutt suggested that a certain delicacy of the skin might possibly be a factor in the production of the peculiar appearance.

Dr. Dana asked if this form of cardiac disease was the only condition in which capillary pulsation was seen.

Dr. Peabody said that, so far as he knew, it had been observed only in connection with aortic regurgitation.

Dr. Dana asked why it was necessary to produce a certain kind of paresis of the capillaries of the skin by rubbing in order to develop the phenomenon, if that was the true explanation.

Dr. Peabody thought the appearance of the pulsation in the skin after slight rubbing was not due so much to paresis of the capillaries as to other causes, for the reason that in parts where the capillaries are substantially normal, the pulsation also could be seen. The conditions which seemed to be most essential to its appearance were *fulness* of the capillaries and thinness of the epidermis, which would enable the observer to see the circulation in the smallest vessels.

Dr. Clement Cleveland read a paper (see p. 485) on

THE FEEDING OF INFANTS.

Dr. H. F. Walker said that he had always had great reluctance in putting a child on bottle-feeding. He did not have the feeling that had been expressed by the author of the paper. He always advocated the use of a wet-nurse, and endeavored to make her as small a dragon as might be. This he accomplished quite readily by having it understood at the very beginning that she could and would be discharged as summarily as the cook or the chambermaid would be if the necessity arose.

With reference to the age of the child and the milk of the wet-nurse, he thought that both the author of the paper and the books had laid too great stress on the statement that they should be about equal. He would never refuse a good wet-nurse, even though she had been nursing six or seven months, if it was probable she would be able to take the child through the period of teething. He thought it was more important to have a nurse who could furnish milk as long as the child required it, than merely to have one whose milk corresponded with the age of the child. He had frequently seen two children nursed successively by one wet-nurse, and the second child did perfectly well.

With reference to bottle-feeding, the suggestion that the child should not be allowed to take milk too freely, Dr. Walker regarded as a very important one, and he also thought that Dr. Cleveland's idea concerning the closed rubber nipple was very valuable.

Dr. Kinnicutt referred to those fortunately rare cases of inability in young infants to digest milk (breast or cow's) *in any form*. Two such cases had come within his personal observation during the past two years. One of the patients was seen by him in consultation with Dr. Richard Wiener. During a period of nine months the inability persisted. Several wet-nurses were tried, and also cow's milk prepared in every conceivable way, but without success. A second patient was under his personal observation for nine months, and with an exactly similar experience. In the latter case recourse was finally had to koumyss, which the patient finally took to the amount of nearly three pints daily, and with good results.

Dr. Polk thought the cases must be exceedingly rare where discrimination and persistence in selecting a wet-nurse were practised.

Dr. Kinnicutt referred to one case in which the child had three wet-nurses, the mother being one of the three,

but all failed, and the mother would not make any further trials. The child was being brought up on a bottle and was thriving very well.

Dr. A. B. Ball was pleased to hear Dr. Walker take such strong grounds concerning wet-nurses, as their opinions coincided upon that point as to the great majority of cases. He thought that one reason why physicians were troubled in getting good wet-nurses was because they were unwilling to take the pains necessary in selecting one. He believed that in a city like New York, it was perfectly possible to get a wet-nurse who would give satisfaction both physically and morally, if the physician was willing to take the trouble to do so. As to the period of nursing as compared with the age of the child, he had not been able to satisfy himself that it was necessary to select a woman whose milk was so near the age of the child as had been mentioned by the author of the paper. He had seen a good number of cases in which milk several months older than the child had given entire satisfaction.

With regard to bottle-nursing, he thought there was less danger connected with that than had formerly been supposed, especially where the best resources were at the command of the physician, such as taking the child out of the city for a considerable portion of the year, etc. In such cases he did not hesitate to resort to bottle-nursing, but should not recommend it if the family was to remain in the city for a considerable portion of the summer. He supposed all agreed that the right kind of wet-nurse was superior to bottle-nursing, and with proper care and patience he thought it would be found to be extremely rare that a thoroughly good wet-nurse could not be obtained.

Dr. W. M. Polk was in full accord with Dr. Walker and also Dr. Ball, and had had far less trouble in getting good wet-nurses than in keeping the digestive organs of the baby all right when bottle-nursed. The mattter of raising a child on the bottle was a piece of fine art, if attended to properly. The question of discharging wet-nurses the same as any other servants, for good cause, was an important one, and he had been accustomed to tell the people to discharge them quicker, and for less offence, than they would a cook. Probably a child, until July and August, would do as well on the bottle as on the breast, but then, especially if the child was teething, it was well to have a wet-nurse. As between a bottle-fed child and one brought up on a good breast of milk, there was no choice.

As all wet-nurses had a constitutional tendency and ability to prevaricate, he made it a rule to have the parents weigh the child occasionally to determine whether or not it was gaining flesh. Very frequently the failure on the part of the nurse did not show itself in the *quantity* of the milk furnished, but alone in the *quality*, and of the quality a good estimate could be made by occasionally weighing the child.

When forced to feed a child with the bottle, he had nothing but thanks to Dr. Cleveland for the rules which he had given, every one of which should be followed strictly.

Dr. Peabody asked if, when properly carried out, bottle-feeding was attended by any greater mortality than occurred with wet-nursing.

Dr. Ball thought it was generally conceded that bottle-feeding, as practised in large cities among the ignorant classes, was attended with a very great mortality, but that did not apply to bottle-feeding when it was properly done. He was not aware, however, that any statistics had been made up based upon cases in which bottle-feeding had been done with care.

Dr. Polk had a general impression that the rate of mortality was greater among bottle-fed children than among those fed from the breast, even when the bottle-feeding is well done.

Dr. C. L. Dana thought it was an important advance if bottle-feeding could be made as safe as wet-nursing, for in the country it was difficult to obtain wet-nurses, and in the city there were very many who could not afford to employ one. It seemed to him that it should be possible to bring up a child on the bottle as well as with a wet-nurse. The digestive powers of children were rather elastic, and the quality of milk was not so very variable as to render it impossible.

He regarded the consideration of age in a wet-nurse as a very strong point, for a change occurred in woman's milk almost from week to week, and the general rule was a steady deterioration, until finally, as the child became able to take artificial food, the breast milk was unfit for use as a nutrient.

Dr. Cleveland remarked that during the last eight years he had regretted bottle-feeding in only *one* case.

Dr. Peabody asked if there was any method of determining the quality of a woman's milk, aside from the experiment of putting the child to the breast.

Dr. Dana did not believe that the microscope could answer the question.

Dr. Kinnicutt said it had been stated by those who had studied the question that there was no way to test the quality of the milk, except by watching its effect upon the child. It could not be tested by the specific gravity, or the quantity of cream, or by the size of the oil-globules.

Dr. Polk said he had a general impression that the milk which contained a large number of colostrum corpuscles was less nutritious than the milk which did not exhibit them.

Dr. Dana said the latest theory was, that milk was formed from the white blood-corpuscles rather than from the epithelial cells of the gland. If that was true he would suppose that the presence of a great number of such large corpuscles showed that the proper change had not taken place, and that a condition existed which verged upon suppuration.

Dr. Gibney asked, in case the child had been fed by a wet-nurse perhaps for a long time, and it became desirable to discharge the nurse at once, what would the child subsist on until another one could be obtained.

Dr. Polk thought an adroit physician would prepare for the emergency by securing a new nurse in advance of the discharge of the old one.

Dr. Cleveland said that certainly he believed woman's milk was better for a child than any other food, but there were so many cases in which it was so exceedingly difficult to get it, that he had been led to turn his attention to the study of bottle-feeding. The point of economy he regarded as an important one, and one not to be overlooked.

Dr. Polk thought the actual difference in expense was not very great, inasmuch as a good nurse was very essential while rearing children on the bottle.

Dr. Polk further remarked that a child that was very sick, from any disease, did better when fed from the breast than from the bottle. Again, children who were being fed from the breast did better than bottle-fed children, if they contracted any disease.

The Society then adjourned.

The Great Mortality in Russia.—The death-rate of Russia is the highest in Europe. This is attributed to the paucity of medical men and the habits of the rural population. According to late returns the average duration of life is only twenty-six years, and the mortality among infants is frightful. More than sixty per cent. of infants die before they reach their fifth year, and nearly 2,000,000 children perish every year. Of 8,000,000 boys, only 3,770,000 attain the age of military service —that is to say, their twenty-fifth year; and of these at least 1,000,000 are found, by reason of shortness of stature and weakness of body, to be unfit for military duties.

TEXAS STATE MEDICAL ASSOCIATION.

Sixteenth Annual Session, held at Belton, Tex., April 22, 23, 24, and 25, 1884.

(Specially reported for THE MEDICAL RECORD.)

THE President, DR. A. P. BROWN, occupied the Chair.

Two hundred and eighty members were present during the session and eighty-eight new members were admitted.

DR. R. W. PARK, Essayist, delivered an address on "Evolution."

DR. A. P. BROWN, President, delivered the annual oration, giving an historical *résumé* of medicine.

DR. J. LARENDON, Treasurer, reported the amount on hand as $20.25.

ONE HUNDRED DOLLARS WERE DONATED THE SIMS MEMORIAL FUND,

with suitable resolutions.

The Association passed resolutions endorsing the Code of the American Medical Association.

The Committee on Necrology reported thirty-six deaths among Texas physicians during the year, seven of whom were members of the Association.

Thirty-four articles on various medical subjects were presented, discussed, and referred to the Committee on Publication.

DR. R. P. FALLEY, of Belton, presented a paper on "Bimuriate of Quinia with Urea used Hypodermically," contending it was easily soluble and not irritating to the tissues.

DR. S. H. STOUT, of Cisco, presented a paper on "Continued Fever," which provoked quite an animated discussion.

DR. J. M. WILLIS next read a paper on "Mineral Waters of Texas, notably Wooten Wells, Lampasas and Palo Pinto Springs, Sulphur and Luling Springs, and Sour Wells."

DR. C. M. RAMSDELL gave a brief *résumé* of "Intestinal Parasites in Texas."

DR. C. R. JOHNSON discoursed on "Hot Water in Heart-Failure from Hydrate of Chloral."

DR. J. C. MILNER, of Gainesville, remarked on "Alcohol as a Poison," and DR. H. W. DUDLEY on "Animal Ligatures from the Texas Mule-eared Rabbit," showing specimens.

DR. J. D. OSBORN, of Cleburne, reported a case of mulberry calculus one inch by one-fourth inch in diameter removed from a female child four years old.

DR. T. H. NOTT reported a case of mulberry calculus much larger, weighing 526 grains.

DR. W. H. BROWN, of Waco, referred to one still larger weighing 12 ounces, and measuring in circumference 10½ by 7½ inches.

DR. C. W. TRUEHEART, of Galveston, reported "A Case of Periosteum Grafting," in which the periosteum was removed from a dog and transferred to a man, resulting in a reproduction of two and three-fourths inches of the clavicle, also one of "Fibroid Tumor of Middle Ear," successfully removed.

DR. EDWARD GOLDMAN, of Monterey, presented some clinical observations on the "Antagonism between Syphilis and Carcinoma."

DR. G. P. HALL, of Galveston, remarked on "Nearsightedness caused by a Carious Molar."

The following papers were read by title: "Fibro-Cystic Tumor;" "Typho-malarial Fever;" "Bloodletting Traits;" "Operation Cyclone;" "Surgery of the Lying-in Chamber;" "Prolonged Vomiting;" "Magnesia Sulphas as a Cholagogue," and referred to the Committee on Publication: Dr. W. J. Burt, Chairman, Dr. J. E. Daniels, and Dr. J. S. Broils.

The following officers were elected for the ensuing year: Dr. H. C. Ghent, of Belton, President; Dr. E. P. Becton, of Sulphur Springs, Dr. H. H. Darr, of Caldwell, and Dr. M. Martin Hearne, Vice-Presidents; Dr. W. J. Burt, of Austin, Secretary, and Dr. J. Larendon, of Houston, Treasurer.

The next meeting will be held at Houston, Texas, in April, 1885.

MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.

Stated Meeting, April 28, 1884.

S. OAKLEY VANDER POEL, M.D., LL.D., PRESIDENT, IN THE CHAIR.

WILLARD PARKER, M.D., LL.D.

THE PRESIDENT announced the death of Dr. Parker, and paid a fitting tribute to the sterling integrity, the manly worth, zeal, and acquirements of his personal friend and professional brother. A memorialist will be appointed.

DR. GARRISH moved that a committee of three be appointed to draft resolutions. Carried.

TRACHOMA AND THE ETIOLOGY OF JEQUIRITY OPHTHALMIA.

DR. JOSEPH A. ANDREWS read a paper on the above subject, in which he devoted considerable space to the study of the histology of the conjunctiva, followed by a consideration of the etiology of the condition based upon the results of experiments performed on animals, and the microscopic investigations in cases developed in the human eye. The special point of interest in his etiological remarks was the fact that he had reached conclusions exactly opposite to those announced by Professor Sattler, of Erlangen, who regarded the disease as due to a particular micro-organism.

Dr. Andrews then gave the method by which his investigations were carried on. He had found micrococci in blenorrhoic trachomic pus, but had not succeeded in establishing by cultivation a physiological condition, namely, an isolated micrococcus which was capable of producing trachoma. Nevertheless it might exist.

The author of the paper then referred to the influence of the general condition of the system on the development of micro-organisms, and all these conditions of the eye; also the influence of race and geographical causes in the etiology of trachoma. In Southern Russia a much larger percentage of cases occurred belonging to this class of eye affections than in New York and Brooklyn, where the ordinary rules of cleanliness were more generally observed.

Probably micrococci were the real promoters of the contagion, although there might be no special micro-organism of the disease.

Dr. Andrews then spoke at some length on the histology of the conjunctiva, with special reference to the existence of adenoid tissue, and gave the conflicting views of a large number of observers. He had come to believe that if the follicles were a pathological product in man, the proof was exceedingly slight that they existed physiologically in animals; that the presence of this condition was due to the manner in which animals were cared for, and that it was pathological, due to spreading of the disease by direct transfer of the contagion.

The writer then directed attention to the definition of trachoma, the nature and structure of the trachoma follicles. His own views were based upon observations made in fifty-six cases. He had never been able to find tubular glands in the conjunctiva, but only the deep furrows which had been regarded by some as tubular structures glandular in character. The tendency to the formation of cysts was exceedingly common, but not peculiar to the trachomic process.

With reference to treatment, the presence of granulations did not furnish immunity against other forms of conjunctivitis. The fact that actual trachomic bodies sometimes disappeared spontaneously confused the study of therapeutic measures. Solutions of the bichloride of

mercury were of special service for cleaning the mucous membrane. Caustics might destroy tissues which we wished to leave unaffected, as well as the granulations; they might have given good results in a few cases, but in the great majority they had caused suffering, and generally substituted another condition which was more mischievous than the original trouble. The author of the paper then spoke of the use of astringents, such as copper, etc., and referred to three cases which he had treated successfully by excision of the conjunctiva.

With regard to jequirity ophthalmia, he thought it important to bear in mind the fact that it had a period of incubation, and hence the applications were to be repeated with caution. The cornea was exposed to risks in its use. But he thought the action of the infusion could be controlled by limiting the number of applications and bearing in mind the period of incubation. Neither purulence nor the formation of a pseudo-membrane was an essential feature of jequirity ophthalmia. In thirty-seven of his fifty-six cases the cure was complete, that is, the granulations and pannus disappeared. In the best cure vision was restored to $\frac{20}{100}$.

Reference was then made to complications due to the use of jequirity. One important danger was removed by its use, namely, liability to inoculate the opposite eye. He had inoculated the opposite eye in several cases of jequirity ophthalmia, but always with negative results. So far, chemical attempts had failed to isolate the active principle of jequirity. The actual cause, however, of the ophthalmia produced by it was probably a ferment developed after application to the eye.

Dr. T. R. Pooley said his use of jequirity had been confined to chronic cases, such as frequent dispensaries, as he wished to determine whether or not it was applicable to the form of trachoma usually treated by copper, etc. The effect in all those cases was almost *nil*. In scarcely any cases did he succeed in forming the characteristic pseudo-membrane. He had the conviction that the remedy was applicable only to those cases which at one time were treated by inoculation with blenorrhoic pus, an extremely dangerous method, but one occasionally followed by good results. He was still of the opinion that its use should be confined to that class of cases, those in which it was necessary to do something even at the hazard of the patient's vision, but he did not believe that its universal use in cases of chronic trachoma would be adopted.

Dr. Knapp said that certainly trachoma was not limited to the poorer classes, and he did not think bad hygienic conditions were the principal agencies in its production. He believed that the most important etiological factor was climate, as its greatest prevalence was in low countries, along rivers, as in the valley of the Nile, etc.

With regard to the agent which produces the ophthalmia when jequirity was used, he only knew that recent writers were in accord with Dr. Andrews in the belief that it was a chemical poison and not a bacillus.

With reference to jequirity as a therapeutic agent, he had used it in all kinds of trachoma, and, while he had obtained good, even brilliant results, he had come to regard its action as not uniform, not controllable, and dangerous. He cited cases in which the jequirity developed diphtheritic inflammation as genuine and dangerous as he had ever seen.

Dr. Gruening thought that if de Wecker had not written anything concerning jequirity except his first article, it would have been sufficient; for he recommended that a three-tenths per cent. infusion be used in the treatment of cases of total pannus which could not be treated by any other means, and treated formerly by the extreme measure of inoculating the eye with gonorrhœal pus, and when so used it did not produce diphtheria.

But the strength of the infusion had been increased to one, two, three, and even to five per cent., and also granulations with slight pannus had been treated with it as well as those for which it was first recommended. Dr. Gruening's first cases were entirely satisfactory, and he still believed that if a three-tenths per cent. infusion, prepared from fresh beans, was used, an effect would be produced which would not be dangerous to the cornea, and that it would be serviceable in chronic hospital cases as well as elsewhere. For total vascular pannus no remedy excelled jequirity. He cited a case in which diphtheria followed a single application of a three per cent. solution.

Dr. R. C. Brandeis reported a case of atrophic pharyngitis in which he made a single application of a three per cent. solution, with the result of producing an intense irritation, congestion, and œdema of the pharyngeal and laryngeal mucous membrane that nearly destroyed the life of his patient.

Dr. Andrews, in closing the discussion, said he thought it well to limit the use of the remedy to chronic cases with well-marked pannus; that it should not be resorted to until all ordinary means had been used unsuccessfully; that we should begin with the weakest solution and take advantage of the fact that there is a period of incubation; and also that the fact that all eyes are not affected in the same way by the remedy should be constantly kept in view.

REPORT OF THE COMMITTEE ON HYGIENE IN PUBLIC SCHOOLS.

Dr. A. Jacobi, Chairman, said that, owing to the lateness of the hour, he would ask the Secretary of the Committee to read a bill now before the Legislature, and if the object sought in the measure needed further explanation before the Society took any action, the report could be continued.

Dr. Van Santvoord then read the bill entitled "An Act to Provide Additional Accommodations for the Common Schools in the City of New York." The Act provides for issuing bonds by the city of New York for two million of dollars, to be expended under the direction of the Board of Education, which had recommended by a vote of fifteen affirmatives to two negatives that it become a law.

Dr. Jacobi moved that the Medical Society of the County of New York hereby records its approval of the Act to provide additional accommodations for the schools of the city of New York, believing that this provision is sound and expedient and will be of great advantage to the city of New York by providing the necessary school accommodations to meet the rapid growth of the population. Carried.

The Society then adjourned.

Correspondence.

THE RECTAL ADMINISTRATION OF ETHER.

To the Editor of The Medical Record.

Sir: On the 21st inst. my attention was directed by Dr. W. T. Bull to an article by Dr. Mollière, in the *Lyons Médicale* of March 30th, on the administration of the vapor of ether by the rectum. I tried this method for the first time on the 21st inst. My apparatus consisted of a citrate-of-magnesia bottle, a piece of rubber tubing, and the vaginal tube of a Davidson syringe. The patent was placed on the side, the tube inserted into the rectum, and the bottle half full of ether placed in a pitcher of water of about 110°. In four minutes the patient was decidedly affected by the ether, and in eight minutes and a half was profoundly under its influence. The tube was retained in place while the operation of curetting was performed and while a thorough examination for suspected ovarian disease was made. The anæsthesia was maintained for twenty-five minutes. The quantity of ether consumed was an ounce and a quarter.

There was no struggling during its administration, and there was no subsequent vomiting or diarrhœa. The bowels did not move afterward until a cathartic was given.

My second case was on the 22d inst. The patient became nearly unconscious in four minutes, when a movement from the bowels took place, and as time was pressing the inhaler was resorted to.

My third case was on the 24th inst. The patient was thoroughly anæsthetized in six minutes and a half, and anæsthesia was maintained for twenty-three minutes. The quantity of ether consumed was two ounces. There was no vomiting and no diarrhœa afterward.

The fourth case was one of ovariotomy. The patient was rendered perfectly unconscious in six minutes and a half by the use of an ounce and a half of ether. It was then deemed expedient to resort to the inhaler, as it was feared that distention of the bowels might interfere with the operation. This patient had no subsequent diarrhœa or vomiting.

My fifth case was on the 28th inst. In seven minutes the patient was ready for operation (on the cervix), which was then begun. The anæsthesia was maintained twenty-seven minutes. The quantity of ether consumed was two ounces.

My sixth case was on the 28th inst., in a patient on whom I performed an operation on the perineum. The rectal method was employed to place the patient under the influence of ether, when the inhaler was substituted. A defect in the apparatus occasioned a loss of time in the rectal administration, but the patient was unconscious in less than ten minutes. No diarrhœa.

The method in question promises, in my opinion, to effect a radical improvement in the method of administering ether. A striking feature is the small quantity of ether required, showing how large a quantity is commonly wasted. The absence of any unpleasant sensation on the part of the patient is a matter of no small importance. The rapidity with which anæsthesia can be induced and the general absence of struggling and opposition by the patient give the rectal method a decided value, even if it should be used only as a preliminary to the usual method. It is evidently desirable that the bowels should be freely moved by an enema beforehand.

Mr. Ford, of Caswell, Hazard & Co., has made for me a very simple apparatus for the use of ether in this way. It consists of a graduated glass vessel, a curved hard rubber rectal tube, and tubing to connect the two. This apparatus enables the operator to observe accurately the quantity of ether consumed. One danger to be guarded against is the condensation of ether by the use of a connecting tube too long and of too small a calibre.

Yours respectfully,

JAMES B. HUNTER, M.D.

2 EAST THIRTY-THIRD STREET.

ON THE DANGER OF INDUCING ANÆSTHESIA BY THE RECTUM.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR: In your issue of to-day you call attention editorially to an article by Mollière, of Lyons, upon the interesting subject of the induction of anæsthesia by the rectum. The great advantage of such a method in connection with operations upon the face, aside from the other claims advanced for it by Mollière, will widely attract the attention of surgeons, and will undoubtedly lead to its being tested on every side. A very brief experience, however, has induced me at once to place before the profession a risk not alluded to by Mollière—which belongs to the mode of administering an anæsthetic—inasmuch as death has occurred in one of my trials with the method. Rectal anæsthesia, as far as I now know, was first used in this city by Dr. W. T. Bull, in the New York Hospital. In his cases the anæsthesia was not complete, and required the use of the usual cone to permit the operation to be begun.' The next day, at my clinic at the College of Physicians and Surgeons, I gave ether by the rectum to a boy aged fourteen, for the removal of a sarcoma of the hand, but although he was rendered sleepy and his breathing became stertorous, yet at the end of fifteen minutes, insensibility not having been produced, etherization by the ordinary way was employed and the operation completed. The next case in which the rectal etherization was tried was for the operation of hare-lip in a robust child aged eight months. The patient came fully under its influence in three minutes without any struggling, and the operation was completed in the usual manner, though it was somewhat prolonged by a reapplication of sutures at the lip to secure a more satisfactory line of union. During the latter part of the anæsthesia, by the use of fresh hot water a too free evolvement of ether vapor took place, and the child's intestines became somewhat distended thereby, but this was readily relieved by releasing the nates, which had been slightly pinched to keep in the vapor and fæces. Less than two ounces of ether was used and the amount of hemorrhage from the wound was but trifling. The child was at the close of the operation somewhat depressed, but rallied under stimulants and heat, and one of the clinic assistants remained with it for several hours until reaction was fairly established. During the night it, however, had several large and bloody passages and died the following morning. This intestinal hemorrhage might have been considered as either accidental or due to the over-distention from the ether vapor, but in some seven cases that have occurred in Dr. Bull's service I learn that in nearly all of these diarrhœa, simple or bloody, has taken place, and that in one case, at the Chambers Street Hospital, the patient was much collapsed afterward. It is obvious, therefore, that considerable risk is entailed by anæsthesia carried on in this manner, and it is my anxiety that this note of warning should appear as closely as possible to your article calling attention to the novelty which leads me to this hasty communication.

Yours very truly, ROBERT F. WEIR, M.D.

37 WEST THIRTY-THIRD STREET,
April 26, 1884.

TREATMENT OF LUPUS.—In an item upon this subject on page 330 of THE RECORD, it is stated that Lemoyez uses hypodermic injections of ether for the cure of lupus. This is a mistake, as it should be *wens*. The mistake came from the similarity of the French words for lupus and wen.

The Medical Record

A Weekly Journal of Medicine and Surgery

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THE MEDICAL RECORD:

A Weekly Journal of Medicine and Surgery.

GEORGE F. SHRADY, A.M., M.D., EDITOR.

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MEETING OF THE AMERICAN MEDICAL ASSOCIATION.

THE meeting of the American Medical Association, held during the present week at Washington, was quite largely attended, and was as representative in character as could be expected under the circumstances of its present organization and its peculiar system of pledges. It cannot be denied that the present restrictions of membership and delegateship have told in many ways against the extended usefulness and the wide-spread influence of what a national scientific association should be. Certain it is that many who would have gladly added interest to the discussions, and would have contributed to the scientific merit of the meeting, have been denied a hearing on account of opinion's sake regarding the performance of conscientious professional duties. And even in that regard, where the line has heretofore been so rigidly drawn, there would appear to be merely a technical difference without a tangible distinction. This seems quite evident from the rather remarkable standpoint of the president of the Association, who in his annual address makes concessions which are not entirely in keeping with his former utterances on the Code question.

He now advises an interpretation being put upon the Code which will allow of a wider range of consultation than is now supposed to be permitted. It virtually makes the old and new Code agree, and is a distinct admission of the fact that some change is needed. He is, however, just in the position that the New York Code Committee was. It did not think that the old Code could be made sufficiently elastic without practically emasculating it. This method will certainly obtain if the propositions made are consistently carried out. He admits that under certain circumstances, to be judged by the individual physician, the higher law of philanthropy must prevail over every code. Beyond this no one cares to, or can conscientiously, go. The State Society took the same ground two years ago, and the members who declared in favor of it are denied representation. It is quite evident, however, that the Association is inclined to look upon the question in a calmer light than heretofore, to allow the force of argument, and to admit that individual differences of opinion have some claim for general recognition. Whatever the ultimate issue may be, the Association can no longer afford to shut off discussion or deny the right of an individual member to think for himself, and to govern his actions toward his patient accordingly. There is, however, a vagueness in the suggestions of the distinguished president as to changes necessary to be made in the Code, which will be readily excused under the circumstances.

The portion of the address referring to medical education was hardly as successful in its aim as that just alluded to. Certain it was that the Association did not heed the injunction not to criticise the medical colleges in their laudable endeavors to elevate the standard of medical education. But the profession itself still needs much instruction as to its duties in the matter. Unfortunately, however, there is a general belief that the medical colleges themselves are too much interested in doing things in their own way to look at the subject in a perfectly impartial light. That this objection does not apply to the distinguished teacher, or to the school which he has so long honored, goes without the saying. But there are always two sides to a question, and that is the only reason why there was such an apparent difference of opinion as to whether the colleges shall rule the profession, or the profession rule the colleges.

It is hardly safe, in these days, to ignore the utility of State examinations for a degree, especially on such grounds as taken by the orator. The objections urged are not only utterly untenable, but add force to the advocacy of a measure in which every one not connected with a medical school has implicit faith.

In reviewing the general work of the session, it may be said that it barely came up to its usual average. Some of the sections did remarkably well, however, and reflected great credit upon their respective chairmen, who, for months beforehand, manifested a becoming zeal in securing papers, and, where it was safe to do so, in asking gentlemen to participate in the discussions.

The *Journal* of the Association received, as might have been anticipated, considerable criticism. Everyone who has read the *Journal* for the past year is hardly ready to second the opinion of the distinguished chairman of the Publication Committee, in believing that it has been conducted as well as could have been expected. Still it deserves considerable credit considering the material it had to work with, and the skill, energy, and enterprise of its management. It has proved itself a journal for the Association, nothing more and nothing less, and it is pleasant to know that the said Association declared its satisfaction by such a decisive vote.

The addresses delivered by the chairmen of various Sections were generally of a practical character, and were becomingly received by the Association.

Various measures relating to public health were advocated in the general sessions and duly passed. One of the most important was that referring to the sanitary regulations of transatlantic steamers. It was proper that the Association should call attention to this subject, and the action taken is an earnest of a reform which is much needed, and which we doubt not will be eventually carried out.

The suggestion that the next meeting of the International Congress be held in this country, will be cordially received by the profession of America, and the action regarding the same will doubtless be seconded by the medical men and medical societies of the chosen city. But it is not our purpose to review in detail the doings of the Association. This is unnecessary, in view of the full telegraphic report of the entire proceedings presented in this issue.

THE UTICA ASYLUM INVESTIGATION.

THE Assembly committee appointed to investigate the recent homicide in the Utica Insane Asylum, and its management, have submitted the evidence taken, and their report thereon. The testimony lies before us, in the form of a portly volume of fourteen hundred closely printed pages, and so arranged that it is all but impossible to form any opinion of its merits as a whole, or to come to any proper and satisfactory conclusion on the subjects investigated. The whole investigation seems to have been loosely organized and prosecuted, and it is not surprising that out of such an amount of chaff as the committee gathered, so few grains of wheat have been winnowed. The committee was formed on the impulse of the first excitement caused by the announcement of the homicide, and some who were appointed had loudly expressed their hostility to the institution. The investigation, therefore, assumed from the first too much the character of a prosecution, and did not at any time have that deliberation and judicial fairness which should characterize the examination of a State institution by a legislative committee. This fact is seen in the kind of testimony taken, and the entire absence of rules governing the taking of evidence.

We cannot attempt to sift this immense accumulation of materials, but shall limit ourselves to noticing some of the more important features of the committee's report or "findings." The committee first allude to the homicide, and state the facts concerning it, but remit the question of guilt of the attendants to the court before which they are to appear. The evidence of the cruel treatment of inmates was given by patients and former attendants, and was conflicting. The testimony of both classes evidently requires the most careful sifting, for the insane, being so intolerant of every form of restraint, often regard their treatment, however mild, as cruel; while discharged attendants usually seek revenge by stories of abuse and mismanagement. We notice that attendants discharged from the asylum for cruelty and immoral conduct now appear as accusers, and even relate their own violation of the rules by maltreating patients, for the purpose of making out a case. Such evidence as this will weigh little with unprejudiced minds. The committee allude to the number of injuries recorded in the injury-book as proof of violence toward patients. They conclude that patients are often treated rudely, and with too little regard to their mental condition.

In seeking a remedy the committee very wisely conclude that it lies in the direction of a better class of attendants, training-schools, and higher wages. The charges of certain female patients, of improper liberties taken with them by the medical officers, are dismissed as not being sustained; but the committee urge the appointment of a woman physician, not only to prevent scandal, but for the better treatment of patients suffering from uterine diseases.

A large share of the report is taken up with the discussion of the business management of the institution, and the conclusion reached is, that greater economy would be secured if there were a central State agency, through which all of the purchases were made.

The committee recommend that the Attorney-General, the Comptroller, and the President of the State Board of Charities be appointed a commission to devise a plan for the better business management of the charitable institutions of the State, receiving the aid of the State, and report to the next Legislature.

This report will prove very disappointing to those who have believed that the Utica Asylum embodied all the cruelties ever practised upon the insane. It is evident that the committee left no stone unturned to discover abuses in every department of its management, for not only were witnesses invited by public proclamation to appear before the committee, but they were allowed to give their testimony in secret, without the presence of the asylum officers, or even of the counsel of the asylum. The evidence shows that the medical and business affairs of the institution were examined in a manner to expose not only all wrong methods and acts, but to ventilate the grievances of all who had ever had occasion to censure its management.

While it is probable that the public interests will in some particulars be served by such examinations as this, we do not believe that the greater and more important interests of the insane are thus subserved. There is no doubt that the whole system of lunacy administration in this State needs revision, and the methods of caring for the insane, acute and chronic, should be placed on a basis more in accord with the recent advances in our knowledge of insanity and the wants of the insane. But when the Legislature enters upon that inquiry, we trust that a commission will be formed embracing medical, legal, and lay talent, and thereby be fully qualified to solve the complex problem of the public care, treatment, and custody of the insane.

THE AMERICAN SURGICAL ASSOCIATION A CLOSE CORPORATION.

AT the meeting of the American Surgical Association in Washington, last week, several applications (eleven we understand) were made for membership. Out of this number four were selected by the Council to be voted for by the Association, and all were rejected by the uni-

form number of ten black balls. When it is stated that the applicants were all well-known and prominent surgeons, scattered from one end of the country to the other, this action looks a little remarkable.

News of the Week.

PROF. S. D. GROSS.—The body of Prof. S. D. Gross, of Philadelphia, was cremated on the 8th.

YELLOW FEVER AND CHOLERA.—Reports from Rio Janeiro show an increase of yellow fever deaths at that place; 28 deaths occurred during the week ending March 15th, and 42 deaths during the following week. At Calcutta the cholera is increasing, as shown by consular reports, there having been 51 deaths from this disease for the week ending March 8th, and 95 deaths during the following week.

THE KIRMESS FOR THE NEW YORK SKIN AND CANCER HOSPITAL.—A "kirmess," or fancy-dress fair, was held this week at the Metropolitan Opera House, for the benefit of the New York Skin and Cancer Hospital, and proved very successful.

Mr. John Jacob Astor lately gave $200,000 toward the founding of the hospital, making a total of $289,000 already raised. A lady who hides her charity under a bushel has given ground worth $35,000. These gifts, with the proceeds of the Kirmess, make the Skin and Cancer Hospital an assured fact.

THE AMERICAN MEDICAL ASSOCIATION AND THE CODE.—Another correspondent, a physician in this city, writes that he has had an experience with the American Medical Association similar to that of Dr. Hamilton's. He was invited by letter to take part in the discussion on epilepsy, but on learning his "ethical" position the chairman dropped him.

MEDICAL INVASION OF AUSTRIA.—Several Prussian physicians, including two professors, have moved to Vienna and other cities in Austria. This has greatly disturbed the Vienna medical press, who speak of it indignantly as an ärtzte-invasion.

THE DISCOVERER OF THE MICRO-ORGANISM OF HOG-CHOLERA.—There seems to be some dispute yet as to who first discovered the micro-organism of the "infectious pneumo-enteritis" of swine. We have received a letter from a Western correspondent, who asserts that we have done injustice to a worthy man in not acknowledging the priority of Dr. Detmers as the original discoverer and cultivator of this organism. A similar charge is made by Dr. Gradle, of Chicago, in a letter to the *Medical News*. If these correspondents had consulted some of the issues of THE RECORD, containing criticisms of the reports published by Dr. Detmers several years ago, they would understand why so little reference is made to that gentleman now. These reports showed then, as they do now, that Dr. Detmers furnished no scientific proof whatever that he had really found a specific micro-organism, while his methods of cultivating what he did find were to the last degree imperfect and inconclusive. In fact, Dr. Detmers went no farther in actual authoritative discovery than Dr. Klein, who preceded him, and whose work he was slow to acknowledge.

THE MEDICAL SOCIETY OF THE STATE OF PENNSYLVANIA will hold its thirty-fifth annual session at Philadelphia, May 14th, 15th, and 16th.

AGAINST LEGALIZING SOCIAL VICE.—Senator Mitchell, of Philadelphia, on April 22d, presented to the U. S. Senate a petition of the Moral Educational Society of Philadelphia, officially signed, praying that the power delegated by Congress to the National Board of Health may be so clearly defined that it will not legalize social vice. Referred to the Committee on Epidemic Diseases.

EXEMPT FROM JURY DUTY.—There are in this city 2,925 physicians and 357 dentists who are exempt from jury duty. The number of lawyers is 4,900, that of clergymen, 1,000; of druggists and clerks, 2,000; of physically disabled, 30,000.

A VIOLATOR OF THE MINNESOTA MEDICAL PRACTICE ACT met with a warm reception recently in Northern Minnesota. He spent the night in jail, and in consideration of suspension of proceedings, took the first train out of the State.

THE NEXT MEETING OF THE MINNESOTA STATE MEDICAL SOCIETY will be at Stillwater, Thursday and Friday, during the third week in June, instead of Tuesday and Wednesday of the same week, as per adjournment. This change has been made by the Executive Committee upon the request of the President of the Society, Dr. W. L. Lincoln, in order to accommodate the members of the Society who are members of the five Pension Boards of the State. The change will inconvenience no one and be a great accommodation to a large number of the Society.

NEUROLOGY IN THE WEST.—Dr. J. S. Jewell, of Chicago, has issued a circular to those especially interested in the study of the nervous part of the human organism in the West, in order to ascertain whether or not it is desirable and feasible to form an association in the West for the study of the nervous system.

TRAINING-SCHOOLS FOR NURSES IN PARIS exist now in several of the hospitals, viz., Salpêtrière, Bicêtre, and La Pitié. This has been brought about largely through the efforts of Dr. Bourneville, the able editor of *Le Progrès Médicale*.

CHICAGO MEDICAL COLLEGE.—Dr. W. H. Casselbery has been appointed Professor of Materia Medica and Therapeutics, Dr. J. W. W. Jaggard Adjunct Professor of Practical Obstetrics, and Dr. F. S. Johnson Lecturer on Histology in this college.

THE ALLEGED CASES OF FOOT AND MOUTH DISEASE IN KANSAS are thought by Dr. D. E. Salmon to be cases of gangrene from ergot in the hay. But how does ergot get in hay? *Secale cornutum* is not generally thought to flourish upon grass.

THE GERMAN GOVERNMENT has under consideration a law making it necessary for students who wish to get degrees in German universities, to take all their courses in these universities. This has much disturbed the Swiss universities, where it is customary for a certain portion of German students to spend part of their time. The *Correspondenz-Blatt f. Schw. Artz* gives a table showing that the percentage of German medical students in the three Swiss universities varies from 2½ to 10.

Reports of Societies.

American Medical Association.

Thirty-fifth Annual Meeting, held at Washington, D. C., May 6, 7, 8, and 9, 1884.

(By telegraph to THE MEDICAL RECORD.)

TUESDAY, MAY 6TH—FIRST DAY.

THE Association met at the Congregational Church, Washington, D. C., and was called to order, at 10.30 A.M., by DR. A. Y. P. GARNETT, of Washington, Chairman of the Committee of Arrangements.

Prayer was offered by Rev. W. A. Leonard, D.D. DR. GARNETT then introduced the President, DR. AUSTIN FLINT, of New York, after which he delivered the address of welcome.

Letters from A. Pearce Gould, F.R.C.S., London, Eng., were received and ordered entered upon the minutes.

The Secretary, DR. W. B. ATKINSON, then read the names (590) of those who had registered, and on motion the register as read was confirmed, except as to those against whom protests had been affirmed.

On motion by DR. BRODIE, of Detroit, the ex-Presidents were invited to seats upon the platform.

Dr. J. H. Trumbull, of Chili, Dr. Jonas A. Marshall, of Massachusetts, and Dr. Garlick, of Racine, Wis., were elected

MEMBERS BY INVITATION.

Also all the members of the Medical Association of the District of Columbia who were not delegates or permanent members.

A letter from Dr. John L. Atlee, ex-President, expressing regret at his inability to be present, was received and ordered entered upon the minutes.

THE PRESIDENT'S ADDRESS.

DR. AUSTIN FLINT, President, then delivered his address, in which he first made reference to the origin of the Association, and to the objects for which it was founded. The plan of organization, with Constitution and By-laws and Code of Ethics, was adopted in 1847, and therefore it was in the thirty-eighth year of its existence.

The motives which led to the formation of the Association were first a desire to promote improvement of medical instruction and advance the standard of medical acquirement, as most satisfactorily set forth in resolutions drawn by Drs. Stillé and Hays. Little was to be expected from State Legislatures in those days, and in that respect no marked progress had been made, for, indeed, the terms regular and irregular were then, as now, not entitled to legal distinction. There seemed to be, therefore, need of unity of council of the members of the medical profession from all parts of the country for its own protection.

The development and growth of the Association were rapid, and now it has passed through a healthy adolescence into mature age. It had outlived and profited by the errors of its youth, and before him was the evidence that it was replete with vitality and vigor.

The text of the President's address was the preamble to the plan of organization adopted at the formation of the Association: "Whereas, the medical convention held in the city of New York, in May, 1846, have declared that it is expedient for the medical profession of the United States to establish a National Medical Association," etc., in which are set forth the special objects already mentioned, and to those his remarks had special reference.

The terms "cultivation and advancement of medical knowledge" implied that medicine was *progressive*. Allusion was then made to the evidence in favor of the statement that progress had been made, and especially with reference to our knowledge concerning the causation of disease, particularly as to the influence of specific poisons in the form of micro-organisms.

A new era is about to be developed, and the time will come when means will be found to destroy morbific agents outside of the body, and thus secure prevention of disease; and means will be found to destroy the agent within the body, and thereby afford the power to arrest the course of disease.

"FOR ELEVATING THE STANDARD OF MEDICAL EDUCATION"

were words which expressed the second of the objects mentioned in the preamble of the original resolution, and included the requirements concerning the examinations for the degree of Doctor in Medicine. It had been said that the recommendations regarding medical education had been nugatory, but there was less room for reproach in that direction than some had supposed. It would be absurd to suppose that the recommendations then made were those which should be followed at the present time, for most of them had been surpassed by the medical colleges. That there was room for further advancement no one would deny, but it was not at all certain that it would continue to the satisfaction of those who regarded with disparagement the progress in medical education manifested in this country.

The President then referred to the close relation which should exist between didactic and clinical teaching, the substitution of recitations for didactic lectures, extension of the period of time for medical teaching, and the advantages of a preliminary education. Concerning the latter, it might be fairly questioned whether the time spent in the study of Greek and Latin might not be expended with more profit in the study of physics and chemistry and the French and German languages.

The progress which had been made with regard to the preliminary education of the medical student had been less satisfactory than that made in medical instruction. That more progress had not been made was partly the fault of the medical schools and partly that of private preceptors; more, however, with the latter than with the former.

WHAT CAN THE ASSOCIATION DO TO PROMOTE THE STANDARD OF MEDICAL EDUCATION?

First, of the things desirable not to do. It was not desirable to decry medical instruction in this country as unworthy of any commendation and contemptible when contrasted with the medical education of other countries. Such disparagement was not warranted by facts, and we had no occasion to be ashamed, as the members of our profession in this country are not ignorant or in any respect unworthy. The profession was honorable and honored. In no country was its social status higher. The sweeping charges against the medical schools were unwarranted, unwise, and unbecoming. He did not wish, however, to appear as an apologist for abuses which affect, directly or indirectly, the standard of medical education. He suggested the appointment of a standing committee, whose function should be to communicate with State associations and medical colleges, with the view to securing uniform action concerning the requirements for matriculation and graduation, and to report to the Association what had been actually accomplished. Not all the improvement desired could be accomplished, but perhaps the question of preliminary education could be considered first and with decided advantage.

With regard to establishing

BOARDS OF MEDICAL EXAMINERS, INDEPENDENT OF THE TEACHING BODY,

the President, without stopping to discuss this point, said that, while there might be some seeming advantages in the plan, it would be impracticable to secure uni-

formity in the different States of the Union, and it also contravened the principles of self-reliance in matters pertaining to the medical profession.

The President then devoted considerable space to the consideration of the subject of

MEDICAL ETHICS,

and answered several objections which had been urged against the Code of the American Medical Association; for example, that it was antiquated, inoperative, etc. Attention was directed especially to the clause regulating consultations, and the views were expressed which have been set forth in a series of comments previously published by Dr. Flint, and with which the profession is already familiar.

The voluntary assumption of a distinctive name, and the announcement to the public that his medical practice is based upon a distinctive system of medicine opposed to legitimate medicine, constitutes an irregular practitioner, and one with whom consultation cannot be held without violating the Code.

While it might be regarded as hazardous to attempt to tamper with the Code, it was safe and reasonable to have interpretations of the Code offered from time to time, and he therefore submitted the recommendation *that the Association adopt resolutions embodying the grounds, more satisfactory than they are given in the Code as it now stands, for refusing fellowship with irregular practitioners.* These could be passed, and others of like purport, from time to time, without necessitating any change in the By-laws or Constitution, and could therefore become at once operative.

Concerning means of enlightening public opinion, the popular diffusion of our Code of Ethics might be beneficial. With regard to emergencies, there was no antagonism between acts of humanity and the Code of Ethics.

The President then referred to the work done in the sections, the friendly feeling fostered by international associations, and suggested that steps be taken with the view to securing the meeting of the International Medical Congress in 1887 in this country. The suggestion was not the outgrowth of his own thought alone, but was proposed by Dr. Samuel D. Gross, to whom Dr. Flint paid a high compliment as the Nestor of American surgery, and the most honored of any member of the medical profession in this country.

In conclusion, he thanked the Association for the honor conferred upon him, the grateful appreciation of which was enhanced by the fact that it came unsought, and he expressed the hope that the thirty-fifth annual meeting might be characterized by harmony and good feeling, and that its proceedings might strengthen the attachment of the Association to the medical profession, extend the boundaries of our knowledge, and promote the welfare of mankind.

Dr. J. M. Toner, of Washington, D. C., moved a vote of thanks to the President for his address, and a request for a copy for publication. Carried.

Dr. Toner also offered a resolution of sympathy for Dr. S. D. Gross, in his severe illness. Adopted. The Association directed that the communication be sent by telegraph.

Dr. Gilson moved that the portion of the President's address relating to Professor Gross be forwarded by telegraph. Carried.

Dr. Richardson, of New Orleans, said that he saw Dr. Gross only a few hours before, and when he asked him if he had any special message to send to the Association, he replied, "Give them my love."

A telegram from Dr. W. O. Baldwin, of Alabama, announced regret at his inability to attend the meeting.

On motion of Dr. L. A. Sayre, of New York, the Association empowered the President to appoint a committee of five to carry into effect measures to secure the meeting of the International Medical Congress in this country in 1887.

On motion of Dr. Ferguson, of Troy, N. Y., the President's address was referred to a committee of seven, to be reported on as speedily as possible.

Dr. Albert Blumenberg, of Alleghany County, Pa., and Dr. B. F. Shreve, of Iowa, were named for

MEMBERS BY INVITATION.

Dr. Keller, of Arkansas, raised the point that none could be made members by invitation except those from regions *not otherwise represented.* The point was declared to be well taken.

Dr. Keller then moved that all those who had been named as members by invitation be invited to seats in the present meeting of the Association.

Dr. X. C. Scott offered a protest against the admission of Dr. A. G. Sherman, which was referred to the Judicial Council.

The Association then adjourned to meet at 10 A.M. May 7th.

Wednesday, May 7th—Second Day.

The Association was called to order at 10 A.M., by the President, and prayer was offered by Rev. W. A. Bartlett, D.D.

COMMITTEE TO PREPARE RESOLUTIONS ON THE DEATH OF SAMUEL D. GROSS, M.D., LL.D., D.C.L., OXON., LL.D., CANTAB.

The President referred to the death of Dr. Gross, and appointed the following committee on resolutions: Drs. T. G. Richardson, of La.; Lewis A. Sayre, of N. Y.; J. H. Packard, of Pa.; F. H. Hamilton, of N. Y.; Moses Gunn, of Chicago; W. T. Briggs, of Tenn., and I. Minis Hays, of Pa.

On motion by Dr. Jenks, of Texas, the President was added to the Committee, and on motion by Dr. Richardson, Dr. Flint was made Chairman of the Committee.

The Secretary read the following telegram, received from Dr. Samuel W. Gross, addressed to the Association: "Your resolutions and extract from the President's Address were received too late. Accept the warm thanks of the family with great tenderness and consideration."

The communication was accepted and ordered entered upon the minutes.

Drs. C. D. Altman and D. Kellogg, of Iowa, were made invited guests.

The Secretary announced the following

COMMITTEE ON NOMINATIONS:

Jerome Cochrane, Ala.; P. O. Hooper, Ark.; G. L. Porter, Conn.; F. W. Hatch, Sr., Cal.; Jesse Hawes, Col.; Hector Galloway, Dak.; William Marshall, Del.; J. W. H. Lovejoy, D. C.; R. B. Burroughs, Fla.; W. F. Holt, Ga.; E. P. Cook, Ill.; Thomas B. Harvey, Ind.; H. C. Huntsman, Ia.; F. F. Dickman, Kan.; W. H. Wathen, Ky.; T. G. Richardson, La.; F. C. Thayer, Me.; J. F. Lynch, Md.; Charles A. Savory, Mass.; H. F. Lester, Mich.; D. Leasure, Minn.; B. A. Duncan, Miss.; N. F. Essig, Mo.; S. D. Mercer, Neb.; Joseph Parrish, N. J.; C. G. O'Hagener, N. C.; J. W. S. Gouley, N. Y.; J. W. Parsons, N. H.; W. M. Beach, O.; J. B. Murdock, Pa.; James H. Eldridge, R. I.; William Huger, S. C.; Duncan Eve, Tenn.; J. H. Pope, Tex.; Alexander Harris, Va.; George Beard, W. Va.; William Fox, Wis.; H. D. Holton, Vt.; N. L. Bates, U.S.N.; J. R. Smith, U.S.A.; Walter Wyman, U. S. Marine Hospital Service.

COMMITTEE ON THE PRESIDENT'S ADDRESS.

N. S. Davis, of Illinois; W. W. Dawson, of Ohio; W. T. Briggs, of Tennessee; T. F. Prewitt, of Missouri; J. L. Cabell, Virginia; H. B. Ransom, and D. W. Stormount.

COMMITTEE ON INTERNATIONAL MEDICAL CONGRESS.

J. S. Billings, D. C.; L. A. Sayre, New York; I. Minis Hays, Pennsylvania; A. W. Foster, Massachusetts, and H. F. Campbell, Georgia.

MEDICAL AND SANITARY SERVICE ON TRANSATLANTIC PASSENGER VESSELS.

Dr. A. N. Bell, of New York, chairman of the committee appointed last year, reported progress, and read the bill now before Congress. The report showed that the rate of mortality for four years ending 1883 was much greater than for four years ending 1873, and the causes were included in two words, negligence and filth.

Dr. Foster Pratt, of Michigan, moved that the report be accepted and the committee continued, to report at the next meeting of the Association.

The subject was discussed by Dr. P. D. Keyser, of Philadelphia, and Dr. J. A. Irwin, of New York, who pointed out some of the defects of the bill, especially those which make it inoperative by the fact that the medical officers are not required to report to some independent body. Further remarks were made by Dr. Gihon, U.S.N., and Dr. Jones.

The motion was adopted.

Dr. Pratt then offered the following, which was adopted:

Resolved, That the American Medical Association urge upon Congress, through their respective Committees on Commerce, the necessity of suitable and efficient legislation to promote the well-being of immigrants to this country, and to protect our public health.

ADDRESS OF THE CHAIRMAN OF THE SECTION ON PRACTICE OF MEDICINE, ETC.,

by John V. Shoemaker, M.D., of Philadelphia.

Mr. President, and Gentlemen of the American Medical Association: As Chairman of the Section in Practical Medicine, etc., it is made imperative upon me, by our by-laws, to lay before you a *résumé* of the progress made and the new discoveries announced in these branches of our science during the past year. The responsibility of this duty, in view of the numerous investigations and important discoveries by the members of the medical profession throughout the civilized world, and the steadily increasing volume of medical literature, etc., renders the task more and more difficult with each succeeding year; for as new theories arise and supplant older ones, they, in turn, will be superseded by others yet unheralded.

Medicine, at the present time, has a tendency to elevate itself beyond the narrow sphere occupied by it years ago. Empiricism is no longer recognized. The ultimate investigation of the cause of disease, and the remedial measures suited to it, seem the absorbing object.

Sceptics hold that with all our efforts no advance has been made upon the inroads of disease, and that mankind is as much subject to its influence as when medicine blindly groped its way. This allegation I most certainly deny. No longer are whole continents devastated by disease; no longer are epidemics the terror of nations, nor countries made uninhabitable to the human race; for with an intimate knowledge of disease and its origin, scientific medicine has adapted measures to its stay, its relief, and its extermination.

The means for making medicine more thoroughly understood and serviceable are, without doubt, the general distribution of its principles and conditions by the wide development of medical literature. With the universal spread of knowledge alone has medicine risen from empiricism, until to-day it may be called a scientific system indeed. It is a matter of congratulation that this great, and the most prominent, Association of practitioners of medicine of our country has launched a journal, which has taken the place of the time-worn "Transactions," in which the valuable investigations of the members of our Association were quietly buried.

It is the studious investigator, however, who, with untiring zeal and devotion, has disinterestedly employed his time to the study of health, disease, and its curative measures, that medicine has to thank for its principal advancement during the past year. While it is not our province to enumerate or name them here, it becomes certainly our duty to mention that noble hero, Dr. Thullier, of Paris, who, with the French Cholera Commission, penetrated into the very pest-houses of Egypt to serve the cause of medicine, and gave up his life there.

I can say but little of the progress of physiology during the past year. The observations that have been recently put forth have not, as yet, stood the test of time.

In the field of pathology and pathological research the study of the infinitesimal has attracted great attention. Humoral pathology of old has had its day. Anatomico-pathology now seems fast to lose its hold upon our workers, in view of the discovery of the constant appearance of micro-organisms as concomitants of special types of disease. They have been demonstrated, classified, propagated, and shown to be constant with certain features of tissue changes. Their causative influence is as yet a matter of grave doubt, and one that in accordance with close observation will probably not be soon cleared up.

Of the subjects prominently brought to the attention of the profession and exciting universal interest, more than any other is that of the bacillus theory of tuberculosis and its contagious character. Only a few years ago Koch stood almost alone in its advocacy. Now there are numbers of unbiassed observers who confirm his famous discovery.

But, while the adherents to Koch's theory have increased wonderfully, there are those not wanting who are open in their criticism, and opposed to the acceptance of anything like a bacterian origin of tuberculosis or other diseases. Their opposition is not based merely upon assertions or clinical evidence, but the result of years of observation and experiments conducted here, as well as at the very birth-place of the bacillus theory. Thus it will be seen that this subject is by no means disposed of yet; and it will undoubtedly form one of the main and interesting points of our discussions at this meeting, in which some of our most prominent pathologists, practitioners, and teachers have promised to take part.

The bacterial origin of other diseases has also been earnestly advocated. Thus, a micro-organism has been found of pneumonia, of infective pleurisy, of syphilis, of gonorrhœa, of pertussis, of nephritis and purpura, of impetigo contagiosa, and herpes labialis, in the blood of patients ill with typhus, in the blood of the spleen of typhoid fever patients, of leprosy, of scarlet fever, of glanders, of erysipelas, of cholera, and of yellow fever.

MEDICINE.

Medicine, in a word, comprises everything relating to the healing art; necessarily we will have to give it here a closer meaning in its relation to clinical observation only.

The knowledge of nervous affections, though it has not progressed with the giant strides of other branches of disease, is steadily advancing and emerging from its mysterious enfoldings.

The treatment of the insane has so vastly improved that it is to be regretted our knowledge of the etiological factors of psychical disease does not keep pace with it, and from this cause, no doubt, arises the difficulty experienced in the diagnosis of such cases, which give rise, now and then, to conflicting opinions in law courts, and which are interpreted to the great disadvantage of medical science.

The investigations and researches in the bacterial origin of phthisis would of necessity call for a reorganization of its clinical aspects. It has attracted the attention of eminent scientists, both *pro* and *con*.

Typhoid fever has arrested the attention of the profession to some extent, with a view of learning the real danger hidden in it, which is now almost universally conceded to be the accompanying hyper pyrexia, giving rise to the tissue changes. The treatment, by cold baths, of all antipyretics, is now thought to be the most serviceable, if we can trust to the statistics of recent investigators, as well as the thorough researches of Sassetzky in the analyses of the excreta.

Of renal diseases, albuminuria has long been the subject of scientific inquiry, being considered more and more of nerve-origin. Its close relation to diabetes, with mutual interchange in certain affections, has brought forward the proposition that both albuminuria and glycosuria may be produced by irritation of certain parts of the floor of the fourth ventricle. And the proposition is well established.

The subject of myxodœma has received new impetus with our confrères abroad.

The disease known as actinomycosis, and described by Ponfick as peculiar to horses and cattle, has been exhibited by Treves in a man, whom he brought before the London Pathological Society.

Trichinosis is with us a very rare disease indeed, in comparison to its frequent occurrence in Continental Europe. In spite of the prohibitive edict against our pork in Germany, quite an endemic of trichinosis has prevailed there of late. The mortality from trichinosis in this country, in comparison with Germany, would lead us most certainly to discriminate in favor of our product to that of the foreign.

With reference to small-pox, the questions if the disease has exhausted the material for its propagation, or if the vigorous vaccination insisted upon by the medical profession has successfully stayed its ravages, are points which are not yet settled. Again the subject of a common origin of vaccinia and variola has been brought forward, and Voigt states that variola is inoculable into cows, and if used for protective inoculation with man it is equivalent, and even preferable, to vaccine, provided that the virus be far enough remote from its first source, else variola, with all its characteristics, may be developed.

In regard to scarlatina much interest has been attached to its prevalence among animals—as the horse, cat, and dog. It has been claimed that contagion was carried both from them to man, and *vice versa*. The pinkeye of horses has been stated to be in many cases nothing else than equine scarlatina, readily contagious, while cases are cited every now and then where the source of the disease unmistakably pointed to the domestic feline or canine pet. The speaker then referred to the occurrence of cholera in Egypt, and of yellow fever in some of our Southern ports. As regards yellow fever, that it is both infectious and contagious can be no longer denied, and if not accompanied by urinary suppression, it is a disease which otherwise shows a fair percentage of recoveries under proper treatment.

THERAPEUTICS.

It may be said of therapeutics, that while in past years they were ignored to a great extent by many physicians and scientists, they have undoubtedly now assumed new features entitling them to a prominent position.

Among the permanent remedies which have found approval during the past year, there is probably none of greater interest than what promises to be one of the most powerful and reliable antipyretics, kairin. Although it has as yet found but little practical application in our own country, the reports concerning it from abroad are such as to make it desirable for us to give it a thorough, practical test.

Another very interesting remedial substance which has been presented to the medical profession as experimented with, is the paraldehyde, a substance isomeric with aldehyde. It is asserted by Dr. Langreuter that it possesses powerful hypnotic properties, with no abnormal phenomena excepting a slight and irregular pulse. It is claimed for it that it produces no cardiac depressant effect, but from its chemical source this seems doubtful.

By far the most useful, as well as the most interesting effect produced by any new therapeutic agent, given to us during the past year, is the *Abrus precatorius*, the jequirity bean of Brazil, in the treatment of pannus and other eye affections. The remarkable virtues of this drug have been due principally to the fact that in it we have pressed into our service the ubiquitous microbe, which is receiving at the present time so much attention.

A matter of interest in therapeutics of the past year was the investigations of DaCosta in regard to the salts of nickel, and especially its bromide, which was found to possess the properties of the bromides generally, but in much smaller doses. It is claimed that it lowers the temperature, does not influence the pulse, nor affect the excretions; that it is a nerve sedative, without exercising a weakening or depressing influence, and of especial value in epilepsy.

The bismuth salicylate is also a new arrival among us, which has been used in the treatment of various forms of diarrhœa and typhoid fever.

Nitroglycerine has again come to the surface, and new and striking results, as well as a larger sphere for its action, has been developed, along with the closer study of its physiological action. Its effect in albuminuria has been recently investigated by Bartholow, who states that it reduces the vascular tension more than any other remedy; lessens the work of the heart by removing the inhibition exercised by the pneumogastric nerve; and that by its action he has not alone seen remarkable instances of relief, but even permanent cures.

Recent investigations in the treatment of albuminuria, by Bartholow, also show the great utility of the chloride of gold and sodium in this disease, both in the subacute and chronic form. He states that "the earlier it is given the better, if structural changes are to be prevented or arrested, and its curative action will necessarily depend on the extent of the damage already inflicted on the kidneys."

The vast research in the field for micro-organisms as causative elements of disease, and the discoveries made therein, have given a new impetus to antiseptic treatment in every branch and affection. Antiseptic inhalations for pulmonary disease have proved of value, whether the germ theory be sustained or not.

A new feature of the greatest importance, which was first agitated by the British Medical Association, and brought before us at our last meeting, is that of collective investigation of disease. The reports already received from our English brethren have demonstrated their value, and prompt us to a similar mode of investigation.

The systematic collection of therapeutic results will alone be invaluable by showing statistically the worth of certain medicinal measures and their comparison in effects with others.

There appears, just at this time, and it is for this reason that I refer to the subject, a desire on the part of a few physicians to gather in cliques, and, with shut doors against their fellow-practitioners, settle to their own satisfaction momentous questions in this or that special department which they affect. Such organizations are generally composed of a few medical authors and teachers and some of their friends, who think themselves immeasurably superior to the profession at large, and would create an aristocracy, as it were, in one of the most democratic of sciences and professions. Here lurks the danger to medicine as a science.

Medicine, to be beneficial to humanity, must be open to one and all, and if its practitioners are to be excluded from medical societies and their meetings—not from a lack of knowledge and good standing—such societies have outlived their usefulness. Special studies may be made by physicians in certain directions, but the ad-

vantages of their research and study must be verified by their practical demonstration through the general practitioner. Without a thorough knowledge specialism avails little. This powerful organization should represent every branch and specialty of medicine, and its knowledge should be open to all its members. We are all entitled to the benefits derived from associated investigations. The American Medical Association is the representative body of the medical profession of this country, and has been organized and conducted by gentlemen who have grown gray in its service, and whose brows are adorned with chaplets most worthily won, not only at home but abroad.

The address was referred to the Section in Medicine.

DR. BRODIE introduced Drs. Bottsford and Steens, delegates from the Canadian Medical Association, and moved that they be made honorary members, and be invited to seats upon the platform. Carried.

THE PRESIDENT welcomed the delegates in behalf of the Association.

ADDRESS OF THE CHAIRMAN OF THE SECTION IN OBSTETRICS AND DISEASES OF WOMEN AND CHILDREN,

by DR. T. A. REAMY, of Cincinnati, O.

Custom, as well as law, prescribed as one of the duties of the chairman of a section to present in his address a digest of the progress which had been made in that special department during the past year. Compliance with the letter of the law was unnecessary, and therefore unprofitable. Medical journals, special and general, exhibited much energy and zeal in collecting and publishing promptly the latest advances, and moreover in placing before each reader editorial criticisms on new discoveries and operations, generally from the pens of those who had superior abilities for such work.

It was therefore deemed appropriate to refer the hearer to these more fertile sources of instruction, and in lieu of a report, such as is indicated by the regulations, to give the

NOTES OF 231 CASES OF THE OPERATION FOR LACERATION OF THE CERVIX UTERI WITHOUT A SINGLE DEATH.

In 6 cases, peri- and para-metritis with general peritonitis occurred. In 3 of these 6 cases the symptoms were sufficiently severe to cause material delay in complete recovery. In *one* of the cases among the *three*, para- and peri-metritis and general peritonitis were so severe that the patient was confined to her bed for three months, but ultimately made a good recovery. In 170 cases the laceration was bilateral; in 30 cases unilateral. Of the latter, 23 were on the left side, and 15 on the right side. In 16 cases the laceration was stellate. In 5 cases, of the posterior lip only; in 2 of the anterior lip only. In 80 cases the laceration was extensive. In 15 of these it extended to the cervico-vaginal junction on both sides; and in 33 of the cases of bilateral laceration the injury extended to the cervical junction. In 167 cases there was perineal laceration sufficient to leave a deformity. In 15 cases the anal sphincter was damaged; and in 7 cases the recto-vaginal septum was opened. In 50 cases he operated on the perineum after recovery from the cervical operation.

Dr. Reamy did not hesitate to curette the uterus at the time of operating on the cervix, nor to resort to it, if necessary, immediately with perineorrhaphy. He caused a stream of hot water to flow over the parts continuously during the progress of the operation, and never used sponges. He had not employed ligature or tourniquet for controlling hemorrhage, but allowed free bleeding from the denuded surfaces, because it softened and thus promoted absorption of the hardened tissues, and facilitated puncture with the needle carrying the sutures. To promote this absorption he regarded as an important factor in starting the process of involution.

The usefulness of trachelorrhaphy, if properly done, could not be overestimated.

Hot water had been so efficient in controlling hemorrhage that it had, in some cases, been necessary to withhold it, in order that sufficient bleeding might occur to soften the tissues before the sutures were introduced.

Among

THE CAUSES OF LACERATION

mention was made of early rupture of membranes and attempts at forcible dilatation, with either the fingers or the improper use of ergot, as far more fruitful sources of the injury than the use of the obstetric forceps.

Many cases occurred inevitably, and he thought the gynecologist should protect the obstetrician, and that such protection should be voluntary.

Dr. Reamy then spoke of the influence of injuries inflicted during parturition in producing cancer, and said that cancer of the uterus was a disease of child-bearing women, and that the fretting of exposed tissues was a prolific source of malignant disease. In all cases of spontaneous healing of laceration of the cervix there was more or less of cicatricial tissue in the parts repaired. All cicatricial tissue, even if not producing reflex symptoms, should be removed thoroughly, so as to obtain union by first intention, in which cicatricial tissue has not been found, and thus removed a source of great danger of the development subsequently of serious disease.

Dr. Reamy then spoke of the

INFLUENCE OF THE OPERATION ON STERILITY.

He knew of thirteen cases in which conception occurred after the operation, and in six of these he attended the women in subsequent labors, and laceration did not again occur. He believed that if the operation was properly performed it favored fertility and often cured sterility.

Catgut sutures should not be used. In some cases reflex symptoms remained; in most cases they were benefited or entirely removed.

METHOD OF OPERATING.

1. He uses nothing with which to draw down the uterus except a single vulsellum, seizing one lip at a time.
2. He draws the uterus down as little as possible.
3. He outlines the denudation with a sharp knife, and then cuts the tissues included in the line with sharp scissors, which prevents rolling of the tissues at the borders of the line of denudation.
4. He allows the parts to bleed freely, but according to the condition of the tissues the absorption of which he wishes to promote.
5. He uses nearly a half-circle needle, Chinese silk, and a plain needle-holder.

Silk sutures may be left in for fifteen to thirty days without danger of cutting out. The perineum may be perfectly healed before the cervical sutures are removed.

6. Wash out the cervical canal with a recurrent stream. Wash the vagina with carbolized hot water within an hour after the operation, and then the vagina should not be syringed until the sixth day, when it should be again washed out, and the syringe used daily until the patient was discharged.

The address was referred to the Section on Obstetrics.

Drs. J. W. Hanna and E. A. Burke were made invited guests.

A communication from the Section on Ophthalmology and relating to the death of Dr. Gross was received and ordered entered upon the minutes.

DR. F. HORNER, representative of the Virginia State Medical Society, offered a resolution with reference to

A PERMANENT FUND FOR THE FAMILIES OF DECEASED PHYSICIANS.

It was ruled out of order, as it was new business, which could not be entertained on the second day of the meeting.

Dr. Henry Smith, of Philadelphia, offered the following resolution concerning

EXPERIMENTAL MEDICINE.

Resolved, That a Standing Committee of seven, with power to increase its number as may be deemed necessary, be appointed by the President, to be known as the Committee on Experimental Medicine of the American Medical Association, charged with the duty of opposing, by all legitimate means, any proposed legal interference with the progress of medical science, as unwise and ill-considered legislation.

The resolution was supported by Drs. P. D. Keyser, of Philadelphia, and John C. Dalton, of New York, and was adopted with only one dissenting voice, that of a woman in the gallery.

The President appointed Dr. Horatio C. Wood, Philadelphia, Chairman; Drs. Wm. Pepper, and James Tyson, Pennsylvania; Christopher Judson, Maryland; John C. Dalton and Austin Flint, Jr., New York, and J. S. Billings, U.S.A.

MEDICAL COLLEGE ADVERTISING.

Dr. Atwood, of St. Louis, offered a memorial from the St. Louis Medical Society, on the above subject, which criticised severely the questionable methods of medical colleges and schools in this direction.

It was referred to the Judicial Council.

Dr. D. Benjamin, of New Jersey, offered the following resolution, and supported it with a vigorous speech against medical colleges.

Resolved, That this Association earnestly urges upon all American medical colleges the necessity of elevating the standard of education, at least so far as to require preliminary examination and a three years' course, a registry of attendance, and practical demonstration of diagnostic skill.

The resolution gave rise to discussion, participated in by Dr. Brodie, of Michigan, who was willing to vote for the resolution if the end desired could be accomplished in that way, and Dr. Keller, of Arkansas, who thought that when preceptors furnished the medical schools good material, the schools, in turn, would give the profession educated medical men.

A motion was made to lay the resolution upon the table, and amid considerable confusion was put and declared carried.

Dr. M. H. Henry, of New York, said that every time this question had been brought before the Association it had been squelched in a most undignified manner.

Dr. Quimby raised the point of order that the negative vote had not been taken when the motion to table was declared carried.

The vote was taken again: ayes, 76; nays, 150.

Dr. Henry then supported the resolution with a vigorous and caustic speech, and did not shrink though met by hissers, to whom he administered scalding reproof. The possession of a medical diploma obtained in this country he regarded as no evidence of qualification to either practise medicine or fill important and responsible medical positions.

Dr. Gibson supported the statement.

After some further random shots and calls of question, question, the resolution was adopted.

The President explained that the decision that the motion to lay upon the table was carried, the negative vote not having been taken, was an oversight, and further added that he was in sympathy with the spirit of the resolution.

Dr. Packard, of Philadelphia, moved to take from the table certain amendments which had been put there at the meeting at St. Paul, pending the report of the Board of Trustees of the *Journal of the American Medical Association*, and that they be made the special order immediately after the delivery of the address of the Chairman of the Section in State Medicine on Thursday. Carried.

The Association then adjourned, after the reception of an invitation from Mr. Spencer W. Beard, Commissioner, to visit the place where artificial hatching of the shad was in progress.

Thursday, May 8th—Third Day.

The Association was called to order at 10 A.M. by the President, and prayer was offered by Rev. William Paret.

Dr. Keller, of Arkansas, rose to a question of privilege and asked that the Association change the report of the Secretary so that the Nominating Committee would designate a time for the annual meeting, in accordance with amendment to by-laws offered by him and adopted at the annual meeting at Cleveland. Request granted.

The President appointed a committee to nominate

TRUSTEES FOR JOURNAL TO FILL VACANCIES

caused by those who retire this year. It was composed as follows: Drs. E. D. Ferguson, New York; W. T. Briggs, Tennessee; J. E. Reeves, West Virginia; J. W. Prewitt, Missouri; George Peck, U.S.N.; Thomas Russell, Missouri; D. W. Stormount, Kansas.

REPORT OF COMMITTEE TO MEMORIALIZE CONGRESS CONCERNING A FIREPROOF BUILDING FOR THE ARMY MUSEUM AND LIBRARY.

The bill had been introduced in Congress, but no action had been taken. The House has increased the annual appropriation to ten thousand dollars. Report received—Committee continued: Drs. Austin Flint, T. G. Richardson, H. F. Campbell.

Dr. G. M. Sternberg offered the following resolution, which was adopted:

Resolved, That a committee of five be appointed by the President to petition Congress to make

SPECIAL APPROPRIATION FOR PROSECUTION OF SCIENTIFIC RESEARCHES RELATING TO CAUSES AND PREVENTION OF INFECTIOUS DISEASES.

Money to be expended under the direction of the National Board of Health. The following gentlemen constituted the Committee: G. M. Sternberg, A. L. Gihon, I. Minis Hays, J. C. Dalton, and J. E. Reeves.

Dr. Keller offered resolutions relative to the

CREMATION OF THE DEAD

as a sanitary measure, which were, however, declared to belong to new business, and were referred accordingly.

REPORT OF THE COMMITTEE ON THE INTERNATIONAL MEDICAL CONGRESS.

The Committee unanimously favored carrying out the suggestion of the President, and recommended that a committee of seven be appointed, of which Dr. Austin Flint should be a member, whose duty should be to extend an invitation to the International Medical Congress at Copenhagen, to hold the next meeting in Washington, D. C., in 1887. It was also resolved that the committee shall have power to elect its own officers, and in case the invitation is accepted, to act as an executive committee, to make all necessary and special arrangements for meeting, solicit funds, and draw from the treasury of the Association a sum not exceeding five hundred dollars, to defray preliminary expenses.

Adopted.

J. M. Toner, the Chairman of the Board of Trustees of Journal, reported, giving an account of the

FINANCIAL STANDING OF THE JOURNAL,

in which was incorporated the report of the editor. It appeared that

THE TOTAL INCOME FOR THE JOURNAL FOR THE FIRST YEAR

was eighteen thousand five hundred and forty-seven dollar

and fifty cents. Deducting expenditures, there was left a balance in treasury of something over five hundred dollars. It appeared also that

THE EDITOR RESIGNED,

but withdrew his resignation, to be renewed finally and absolutely at end of next year.

The Journal had been conducted with economy, ability, and judgment, and the best interests of the Association been kept steadily in view.

Dr. J. H. Packard presented a minority report, signed by himself, saying that

THE JOURNAL HAD NOT APPROACHED ANYWHERE NEAR WHAT THE STANDARD AND ESTABLISHED ORGAN OF THE ASSOCIATION SHOULD BE,

and recommending that the resignation of the editor be accepted, and that the publication office be transferred to either Washington, Philadelphia, or New York.

It was moved to lay the minority report upon the table.

Carried, ayes 191, nays 74. Majority report adopted.

REPORT OF THE COMMITTEE ON NOMINATIONS

was next presented:

President—Henry F. Campbell, Georgia.

Vice-Presidents—J. S. Lynch, Maryland; S. D. Mercer, Nebraska; J. W. Parsons, New Hampshire; H. C. Ghent, Texas.

Treasurer—R. J. Dunglison, Pennsylvania.

Librarian—C. H. Kleinschmidt, District of Columbia.

Chairman of Committee of Arrangements—S. D. Logan, New Orleans.

Assistant Secretary—W. H. Watkins, New Orleans.

Members of Judiciary Council—J. K. Bartlett, Wisconsin; J. H. Murphy, Minnesota; J. M. Toner, Washington; W. Brodie, Michigan; H. D. Holton, Vermont; A. B. Sloan, Missouri; Dr. Ulrich, Pennsylvania; W. M. Beach, Ohio.

Committee on Necrology—J. M. Toner, Washington, D. C., Chairman; C. H. Franklin, Alabama; W. N. Yates, Arkansas; W. R. Clump, California; Charles Dennison, Colorado; C. W. Cranzoni, District Columbia; J. G. Thomas, Georgia; J. H. Hollister, Illinois; J. F. Hibbard, Indiana; C. V. Motram, Kansas; D. S. Reynolds, Kentucky; B. A. Ashby, Maryland; H. O. Marcy, Massachusetts; W. F. Brenkey, Michigan; A. J. Stone, Minnesota; Dr. Smythe, Mississippi; R. C. Moore, Nebraska; Stephen Wicks, New Jersey; J. Lewis Smith, New York; E. E. Graves, New Hampshire; F. E. Larrimore, Ohio; I. Minis Hays, Pennsylvania; W. E. Anthony, Rhode Island; T. T. Robertson, South Carolina; D. D. Saunders, Tennessee; Dr. Harris, Texas; C. M. Chandler, Vermont; H. M. Clarkson, Virginia; W. F. Van Kirk, West Virginia; J. K. Bartlett, Wisconsin; W. R. Forward, United States Navy; N. L. Bates, United States Navy; H. W. Austin, United States Marine Hospital Service.

Officers of Sections: Practice of Medicine—Dr. H. D. Diama, New York, Chairman; G. M. Garland, Massachusetts, Secretary. *Surgery and Anatomy*—Duncan Eve, Tennessee, Chairman; C. B. King, Pennsylvania. *Obstetrics and Diseases of Women*—R. S. Sutton, Pittsburg, Chairman; J. T. Jelks, Arkansas, Secretary. *State Medicine*—E. W. Schauffler, Missouri, Chairman; J. M. McCormick, Kentucky, Secretary; J. A. Dibbrell, Arkansas; R. D. Webb, Alabama; F. W. Hatch, California; C. W. Chamberlain, Connecticut; L. P. Bush, Delaware; N. E. Forward, District of Columbia; J. P. Logan, Georgia; J. H. Rauch, Illinois; E. S. Elder, Indiana; W. S. Roberts, Iowa; H. D. Hanawalt, Kansas; J. A. Ireland, Kentucky; S. E. Chaille, Louisiana; T. A. Foster, Maine; J. A. Stewart, Maryland; Dr. Warner, Massachusetts; E. Foster Pratt, Michigan; T. Jones, Minnesota; T. F. Prewitt, Missouri; A. H. Lowers, Nebraska; Dr. Oakley, New Jersey; N. C. Husted, New York; A. B. Richardson, New Hampshire; J. D. Thomas, Pennsylvania; C. H. Fisher, Rhode Island; G. M. Simmons, South Carolina; C. C. Fite, Tennessee; F. E. Daniel, Texas; E. F. Upham, Vermont; J. E. Chancellor, Virginia; N. D. Baker, West Virginia; J. T. Reeve, Wisconsin; George Peck, U. S. Navy; J. R. Smith, U. S. Army; P. H. Bailhache, U. S. Marine Hospital Service. *Ophthalmology, Otology, and Laryngology*—J. A. White, Virginia, Chairman; Eugene Smith, Michigan, Secretary. *Diseases of Children*—J. H. Pope, Texas, Chairman; S. S. Adams, Washington, Secretary. *Oral and Dental Surgery*—A. W. Harlan, Illinois, Chairman; J. E. Mears, Pennsylvania, Secretary.

PLACE AND TIME OF MEETING, NEW ORLEANS—LAST TUESDAY IN APRIL, 1885.

Trustees of Journal—H. F. Campbell, J. H. Packard, Leartus Connor.

Dr. N. S. Davis made a report for the Committee on Meteorology. The investigations included the reports of the Signal Service Bureau, daily observations on the amount of ozone and free and albuminous ammonia in the air, and observations on the occurrence of acute diseases. The investigations regarding ozone and organic matter had been carried out systematically in the past year, and the results were published, in part, in the journal. Dr. Davis recommended that the work of the committee be continued.

He also reported that he had received communications from the British Medical Association regarding the subject of

THE COLLECTIVE INVESTIGATION OF DISEASE.

He had received cards and forms to be used, and had distributed a large number of them. The results were such as justified him in recommending that the American Medical Association co-operate with the British Association. It would be necessary to use the same cards. The committee recommended that a sum not exceeding three hundred dollars be appropriated to carry out the collective investigation during the coming year.

REPORT OF JUDICIAL COUNCIL.

In the case of S. S. Good, Somerset County, Penn., it was decided that said society was not entitled to representation for the reason that it had not been recognized by the Medical Society of the State of Pennsylvania.

In the case of Dr. H. G. Sherman, Cuyahoga County, O., the protest was withdrawn, and the applicant permitted to register.

In the case of Dr. W. W. Day, the evidence in favor of reopening it was incompetent.

The address of the Chairman of the Section on Surgery was read by title and referred to the Section. Its subject was: "Effects and Results of Operation for Relief of Gun-shot Wounds of Small Intestines."

The address of the Chairman on State Medicine was, on motion, postponed until Friday.

FRIDAY, MAY 9TH—FOURTH DAY.

The meeting was called to order by the PRESIDENT.

Dr. DALTON, of New York, offered supplementary resolutions concerning experimental medicine, that this Association desires to express its earnest conviction that

EXPERIMENTATION ON ANIMALS

is a most useful source of knowledge in medical science, and can be entrusted only to members of the medical profession, and that the committee be empowered to elect associate members. Adopted unanimously.

Dr. E. Grissom, North Carolina, moved that it be declared, as the opinion of the Association, that all vacancies which hereafter occur in the Board of Trustees for the Journal nominations be made by the Committee on Nominations. Ayes, 31; nays, 10.

The Committee on Resolutions on the Death of Dr. Gross was continued, with power to report hereafter.

Dr. N. S. Davis, for Committee

ON PRESIDENT'S ADDRESS,

reported that no report on subject of declarations concerning medical ethics would be made, and asked for a committee of five to report at next annual meeting such explanatory declarations as said committee may deem proper. Adopted, and President made member of committee.

Dr. W. W. Allport, of Illinois, was elected Chairman of the Section on Oral and Dental Surgery, and Edward C. Briggs, of Massachusetts, Secretary.

Because gentlemen reported by Committee on Nominations were not in attendance on meeting of Association, Dr. Seth Gordon, of Maine, was added to Committee on Necrology; Dr. Thomas Anticell, of Washington, was substituted for nominee reported by Committee of Nominations for Committee on State Medicine. Dr. Chancellor resigned as member of Committee on State Medicine.

The Permanent

COMMITTEE ON INVITATION TO INTERNATIONAL MEDICAL CONGRESS

was as follows: Austin Flint, Jr., I. Minis Hays, L. A. Sayre, C. Johnson, G. J. Engelmann, J. M. Browne, J. S. Billings; H. F. Campbell, President-elect, was added.

Dr. J. H. Packard presented the revised amendment offered at St. Paul, viz., "That membership shall be acquired by any one received as delegate, and that he shall remain a permanent member as long as he continues in good standing in the Society from which he is sent, and keeps up his annual dues." Adopted after a long discussion.

Dr. Von Klein, of Ohio, proposed an amendment to the Constitution, providing that graduates from medical colleges which do not require literary education as a prerequisite to graduation, shall not be eligible to delegateship to the Association, but it shall not apply to the army and navy.

Dr. Keller asked that his resolution

CONCERNING CREMATION

be referred to the Section on State Medicine. Cremation in the near future, in large cities, will be a sanitary necessity.

Dr. Pratt, of Michigan, offered an amendment to the Constitution, to the effect that the Chairmen and Secretaries of Sections hereafter be elected by each section.

Dr. Cochrane, of Alabama, offered an amendment that the Nominating Committee shall not nominate from their own number for officers.

Dr. Pratt, of Michigan, offered the resolution earnestly urging Congress to legislate

TO PREVENT IMMIGRATION OF DEFECTIVE CLASSES TO THIS COUNTRY.

Dr. Deering J. Roberts delivered

AN ADDRESS ON STATE MEDICINE.

He made a brief reference to the progress in State medicine during the past year. He then took up the subject of medical education and its relation to the State, and maintained that legislation did not help medical education. He asserted that in those States which had laws regulating medical education, the profession stood no higher than elsewhere. He cited the views of Dr. Drake and Prof. Huxley, and argued that every man had a right to have what medicine, or doctor, or person he liked. He defended the literary and scientific work of the American physicians. The speaker then urged the necessity of a better sanitary organization.

The contest between the National Board of Health and the Marine Hospital Service was unfortunate for each party, and each was somewhat to blame. He thought the organization of the national board unwieldly, and recommended the establishment of an independent health department.

W. A. H. Coop, of Tennessee, entered his protest against the go-as-you-please style of practising medicine advocated in the address.

ADDRESS OF THE CHAIRMAN OF THE SECTION ON OPHTHALMOLOGY, OTOLOGY, AND LARYNGOLOGY,

by Dr. J. J. Chisolm, Chairman, on "Usefulness of Special Knowledge and Desirability of Using Well-defined Special Medical Truths by General Practitioners," was referred to Committee on Publication.

ADDRESS OF THE CHAIRMAN OF THE SECTION ON DISEASES OF CHILDREN,

by William Lee, of Baltimore, Md.

Opposed to specialties as they are generally practised, as many of the best and wisest in our profession are, it must be admitted, nevertheless, that the formation of a Section on Children's Diseases by this Association was eminently proper; for not only has our example been followed by the British Medical Association, but in these days, when the question as to division of labor in science of medicine, as well as in other fields of human labor, is engaging so much attention, pediatrics must sooner or later be allowed to hold that independent position which it deserves. It is now four years since the establishment of this Section, and we believe the good effects to be derived are indisputable. Certain affections are met with in children only, and there are others common, it is true, to every period of life, but which are modified in peculiar ways when they occur in childhood.

The contributions to medical literature during the past year have been so numerous and important that I have thought best to confine my report entirely to the

INFECTIOUS AND CONTAGIOUS DISEASES OF CHILDREN,

and in order to give as complete a review as possible, have deemed it wise to go back of the present year, particularly as at the last year's meeting no written report was presented.

DIPHTHERIA.

Dr. Carpenter, on the etiology and treatment of diphtheria, endeavors to show how by analogy diphtheria and potato disease may be allied to each other, and then, after mentioning the influence of sudden rise and fall of temperature, effects of sewers, impure milk, etc., gives facts to prove how the germ upon which he believes diphtheria to depend for its development may be suddenly brought into activity, particularly amongst the poor, who allow their families to remain on wash-days in the steamy atmosphere of the rooms in which they not only do their work but likewise sleep.

He sums up this part of his article by classifying the conditions necessary for an outbreak of diphtheria under five heads:

1. The presence of certain forms of excreta.

2. Of an elevated temperature not much below blood heat, but below that requisite for the coagulation of albumen.

3. Of an atmosphere saturated with moisture, and probably also with (4) an excess of carbonic acid, or some other acid in the air by which the growth of the germ is determined, and (5) some other meteorological or electrical manifestation at present entirely unknown.

Dr. Reese has advised for the treatment of diphtheria a solution of bichloride of mercury in the proportion of one grain to four ounces of rain-water.

He orders the patient, if old enough, to gargle and rinse the mouth every two hours, and take afterward in-

ternally a teaspoonful; should the disease be very severe it must be done every hour. Within fifteen or twenty-four hours the exudation will disappear, but will return unless the remedy is continued. This treatment must be kept up for a week or longer, the strength of the gargle and frequency of use being regulated by the effects produced, namely, nausea, vomiting, or purging. As long as the system is suffering from the poison these symptoms will be absent.

Dr. Selldon uses the cyanuret of mercury, one centigramme to one hundred grammes of water; dose, two teaspoonfuls internally every hour, day and night. Also, when children are old enough, allows them to gargle with a similar solution.

He also treated two hundred cases of angina of the tonsils and fauces with the same solution, and always with good results.

SCARLET FEVER.

Mr. R. W. Mullican, in a paper on the "Etiology of Acute Specific Disease," and also Dr. John Meredith, have brought forward some evidence to show that scarlatina may be evolved from diphtheria.

In a very interesting article Dr. Oxley attempts to show that scarlet fever is not a very infectious disease during the first two or three days, and says that this may be easily explained, if we only accept the theory that the fever depends upon specific germs being introduced into the body and bred there; and only becomes infectious after they are reproduced in the host and thrown off, either from the skin, throat, or other secreting surfaces. There are exceptions where the disease, when present even in a very mild form, may prove infectious very early in the illness; but this is probably due to the fact that, owing to the initial symptoms being mild, this disease is only discovered after making considerable progress.

Rheumatic fever he says may come on during the course of scarlet fever as early as the sixth or eighth day, or during convalescence, when we think our patient doing well.

In speaking of the treatment in this complication the doctor strongly interdicts the use of the salicylates, because the skin and kidneys are both desquamating and not in a fit condition to be called upon to do any extra work.

Tonge Smith, from an experience in treating 2,000 cases of scarlet fever, observed within the last three and a half years, has become convinced that the incubation period does not last more than three days.

CEREBRO-SPINAL FEVER.

Dr. J. Lewis Smith, in an exhaustive paper on the Etiology, etc., of this disease, reports that, according to Lyden and E. Sandier, micrococci seem to be the cause of this disease; but proof is wanting that this germ bears a causative relation to it. The Chairman then gave a synopsis of Dr. Smith's papers published in THE MEDICAL RECORD, November and December, 1883.

TYPHOID AND TYPHUS FEVER.

Amongst the various forms of typhoid fever which occur in children, it is scarcely necessary to insist upon the importance of diagnosing that transient variety which so frequently escapes observation.

The premonitory symptoms are so vague, and the headache, restlessness at night, constipation, and fever are so ill-defined and so slight that it is no easy matter to discover them. When the affection is once declared, however, it remains for some time, the chief symptom being that the child does not sleep, while the tongue is somewhat red, and the abdomen is slightly swollen.

The spots are often difficult to see on account of the local applications which have been employed, but at a later stage the fever becomes well defined, with morning remissions until the fifteenth day, when the patient begins to convalesce.

Ashby says typhoid fever more often aborts in children than in adults, that is, the disease runs a course of two weeks instead of three or four.

The onset in the majority of cases is very gradual.

Mortality.—Barthez and Rilliet, Hillier, Gerhardt, and others, place the death-rate of children from two to twelve years at ten per cent.

Treatment.—Little medicine is required, excepting for the purpose of lowering the temperature, unless complications arise.

MEASLES.

Dr. Meedigan records three cases of insanity which occurred either during the course of, or in convalescence from measles. The youngest of those affected was aged fifteen, and the oldest aged twenty-six.

Dr. Pelerean calls attention to the influence of malaria during an epidemic of roseola and measles.

In many cases of roseola, which appeared first, the fever would assume a remittent type, either preceding the rash for from two to eight days, or the rash would precede the fever. Then, again, both fever and rash would declare themselves simultaneously. The severe symptoms noticed were headache, heat of skin, furred tongue, and vomiting.

With the exception of quinia, in most cases the treatment was upon a merely expectant plan.

Professor Demme, in a report on an epidemic of measles and its peculiarities, mentions two cases—one a girl suffering from chorea, and the other a boy, nine years old, suffering from prurigo—both of whom were freed of their respective diseases upon measles appearing; also that of a child, three years old, who had measles twice in ten weeks.

Dr. Keating gives a very interesting report of a recent epidemic of measles, and in it calls especial attention to the following points, viz.: the microscopic examination of the blood and the constant association of micrococci with the general manifestation of malignancy (a condition already well known), and the gradual but positive amelioration of all bad symptoms by treatment, which was directed to the micrococci as the *fons et origo* of trouble.

The Chairman also referred to cases and facts reported by Dr. Reid, in the *Philadelphia Times*, and Dr. Maclean, in the London *Lancet*.

VARIOLA AND VACCINIA.

Dr. Roger McNiel says that so far statistics go to show that under ten years the initial rash is extremely rare, and that comparatively few vaccinated children under that age are affected with small-pox.

Dr. Stewart refers to a case reported by Dr. Richard S. Stewart, in which a child was born with pustules over its body, and died on the fourth or fifth day of small-pox, the mother having been attacked two weeks before parturition with this disease.

Dr. I. E. Atkinson saw a woman, under the care of another physician, who immediately preceding her confinement was living in a room with a case of confluent small-pox. She was successfully vaccinated, and six days and nineteen hours after gave birth to an apparently healthy child. Three days after her labor her child was attacked with the disease, but of the discrete variety, and recovered without secondary fever or subsequent pitting.

Dr. Page, on treatment, says: "I have been so much pleased with the apparently abortive action of actea racemosa on variola in the case of a negro man who had 'just moved to Baltimore,' and on four of his children, all of whom had the disease coming out in rich profusion—that I made a note of the fact.

"Under the use of this drug the cases progressed to the papular stage, and in the case of the father pustula-

tion took place only on the face; but in the cases of the children the secondary fever and pustulation did not take place. The actea racemosa was administered in the form of the tincture with simple elixir. I have had no opportunity to try the medicine except in that one family."

Rosenthal, acting on an article by Boyer, has employed salicylic acid in many cases with good results.

He confirms the statement that salicylic acid in small-pox reduces the temperature, is sedative, and modifies the eruption.

MUMPS.

MM. Cabitun and Charrin, at a recent meeting of the Biological Society of Paris, gave an account of the investigations, in which they have for some time been engaged, on the presence of minute organisms in the blood of persons suffering from mumps. These are multipliable by cultivation of Liebig's broth, and are found to consist of minute *batonnets*, but chiefly of micrococci, all in a state of motion. These minute organisms, they consider, corroborate the clinical observations which tend to place mumps among the infectious diseases.

The absolute proof that this disease is due to these minute bodies by reproducing it by inoculation of the cultivated forms has not been attained by the experiments made to that end.

Attention is called to the fact of the great frequency of meningitis as a metastasis and to the combination of this with orchitis. This combination, the writer believes, has not been recorded.

INFANTILE DIARRHŒA.

Ballard, on the "Etiology and Pathology of Summer Diarrhœa in Children," says: "The disease cannot be considered a simple dyspepsia, but rather an affection of the system at large, which can, in less than twenty hours, produce lesions of considerable greatness."

The influence of elevated temperature is undeniably efficient in producing this disease, and that influence remains even after the months of autumn.

Speaking in general terms, it may be said that in great cities the maximum of heat in July will have a direct bearing upon the maximum of mortality from infantile diarrhœa. The fetid exhalations of sewers have been accused by certain hygienists as the cause of this trouble, and admitting that there may be some room for such a charge, it is to be observed that Nottingham, which possesses no sewers, has a high death-rate from infantile diarrhœa.

ERYSIPELAS.

Dr. Lawrence draws our attention to the importance of bearing in mind the frequency of infantile erysipelas. It may originate from either puerperal fever or some epidemic influences prevailing at the time of birth. Again, erysipelas may occur as an idiopathic expression of a blood infection. More frequently, however, it has a traumatic origin, the starting-point being the umbilicus, but any abraded cutaneous surface renders the disease possible, as eczema, intertrigo, impetigo, cicatrizing vaccine pustules, etc.

W. A. Macleod reports a case to substantiate the infectious nature of erysipelas.

WHOOPING-COUGH.

Prof. Rossbach says, in regard to the essential nature of pertussis, that bronchial catarrh must not be regarded as a mere complication, but as immediately connected with the very existence of whooping-cough. The disease has its seat especially in the larger bronchi.

He further says that the attacks of coughing are not alone produced by the mucus but also by the irritation of the violent draughts of air accompanying forced respiration. One of the essential etiological conditions is the existence of a reflex neurosis, and he thinks it probable that in whooping-cough the coughing centre in the medulla oblongata is in a state of abnormal excitability owing to the presence of some specific virus. The results of treatment, he considers, support these views.

M. Gueneau de Mussy[1] has constantly found enlargement of the mediastinal glands and compression of the recurrent laryngeal nerves in children that have died of whooping-cough. He considers whooping-cough to be an eruptive fever in which the eruption is internal.

Prof. O. Heubner has tested the comparative action of five of the most common remedies in this disease, viz.: bromide potassium, quinine, hydrate chloral, salicylic acid, and belladonna. In none of the twenty-three cases in which the bromide was given was the duration of the disease lessened. Chloral was given in divided doses in two, and an enema in eight cases. In two the duration of the disease was lessened, and the intensity and length of the paroxysms in six cases. Salicylic acid was given by inhalation in sixteen, and as salicylate of soda internally in one case. In two the duration of the disease, and in ten the length and severity of the paroxysms were lessened. Belladonna was given in eight cases. In three the duration of the disease, and in one case the intensity of the paroxysms were lessened.

Thus salicylic acid and chloral tend to relieve the paroxysm; belladonna and quinine to shorten the disease.

Dr. John Dewar calls attention to ergot as being the safest and best remedy.

He says ergot seldom fails to cure whooping-cough in from one to three weeks, the cases longer in getting better being those complicated with bronchitis or with troublesome bronchial catarrh. The dose used was 4 to 15 minims of the fluid extract every three or four hours to a child of three months and upward.

While being able to endorse Dr. Dewar's statements in regard to ergot in the treatment of whooping-cough, it must be borne in mind that there often arise stages of the disease in which other remedies must be used at the same time.

The address was referred to the Committee on Publication.

ADDRESS OF THE CHAIRMAN OF THE SECTION ON ORAL AND DENTAL SURGERY.

Dr. T. W. Brophy, of Illinois, touched upon the advances and improvements made during the past year, chiefly upon the advisability of establishing professorships in this department in medical schools.

Referred to the Committee on Publication.

Dr. Toner, of Washington, D. C., offered his "Report on Necrology."

A resolution was presented from the Section on State Medicine, recommending that the several societies represented in the Association use their influence with their State representatives

TO SECURE LAWS REQUIRING PERSONS ENTERING THE PROFESSION TO PASS A SATISFACTORY PRELIMINARY EXAMINATION.

Carried.

Dr. C. Seiler, of Philadelphia, offered an amendment to the Constitution, dividing the Section on Ophthalmology and Laryngology.

REPORT OF TREASURER.

The Treasurer made his annual report, showing that there was a balance of $2,212 in the treasury.

Dr. William Brodie moved that the payment of $5 dues annually be made essential to permanent membership. Carried.

[1] London Practitioner, vol. xviii., page 292.

The report of the Librarian was read and referred to the Committee on Publication.

Dr. W. Beach, of Ohio, presented a resolution asking Congress to complete its legislation upon pleuropneumonia. Carried.

THE PRESIDENT ELECT, DR. CAMPBELL,

was escorted to the platform and introduced by the President. Dr. Von Klein offered a resolution to the effect that hereafter

THE ASSOCIATION DISPENSE WITH PRAYER

at its opening session. Tabled unanimously.

Dr. Q. Ott, of Pennsylvania, offered a resolution urging Congress to take proper care of the

UNITED STATES MEDICAL MUSEUM AND LIBRARY,

and to secure an early completion of the "Index Catalogue." Carried.

Dr. Lasure, offered a resolution, that the Association protest against any of its members endorsing, by signing certificates, mineral waters and pharmaceutical preparations: Carried.

A communication was read from the West Philadelphia Medical Society, with regard to the Code of Ethics, expressing the Society's adherence to it, and

URGING MEMBERS TO SEND PUPILS ONLY TO THOSE COLLEGES WHERE THE ETHICS OF THE CODE WERE MAINTAINED,

which was referred to the Judicial Council.

Dr. F. E. Daniel, of Texas, offered a resolution urging that caustic potash, concentrated lye, and similar commercial preparations be rated as poisons. Carried.

A resolution from the St. Louis Medical Society was read upon the subject of

ADVERTISING THROUGH THE AGENCY OF MEDICAL COLLEGES

and college announcements and circulars. Referred to the Judicial Council.

Dr. Knott, of Texas, offered a resolution of respect to the memory of Dr. J. Marion Sims. This was, through mistake, not acted upon.

Dr. A. L. Gihon moved that a committee of five be appointed to consider the subject of erecting a

MONUMENT TO DR. BENJAMIN RUSH.

Carried.

The following were next appointed as

DELEGATES ABROAD.

Drs. J. W. S. Gouley, E. C. Harwood, H. D. Didama, C. C. Wycoff, Fred Hyde, N. C. Husted, G. T. Stevens, and J. C. Hutchison, New York; S. C. Gordon and T. L. Estabrook, Maine; A. J. Jones, E. M. Dent, and J. F. Gabriel, Virginia; C. E. Vaughn, and H. O. Marcy, Massachusetts; J. V. Shoemaker, N. A. Hobday, and W. H. Daly, Pennsylvania; H. P. C. Wilson, Maryland; D. W. Prentiss, L. Friederich, and S. C. Busey, District of Columbia; J. M. Browne, U. S. Navy; J. S. Billings, U. S. Navy; Edward Boerck, Missouri; T. J. Gallaher and A. M. Pollock, Pennsylvania; C. Deveny, Illinois; C. Johnson, Maryland; Austin Flint, New York; H. F. Campbell, Georgia. Delegates Canadian Medical Association, W. S. Tremaine and E. N. Bush, New York; W. Brodie and H. O. Walker, Michigan. British Science Association, W. Brodie.

Dr. Brodie, of Michigan, offered a resolution of general thanks to all committees, persons, and institutions, who had extended courtesies to the Association. Carried.

Dr. Garcelon, of Maine, offered a resolution of thanks to the President, which was put by the Secretary and carried.

The Association then adjourned.

GENERAL IMPRESSIONS OF THE MEETING—WHAT IS THOUGHT OF THE ETHICAL QUESTION—NOT WORTH HAVING A QUARREL OVER—THE JOURNAL OF THE ASSOCIATION OF SOME GOOD.

(By Telegraph to The Medical Record.)

To the Editor of The Medical Record.

Sir: The meeting of the American Medical Association has been a successful one, and enjoyable to those attending. There were no serious dissensions in the meetings, although small clouds occasionally arose. The President's address was well received; but excited less comment than might have been expected. It seems to be a general impression, especially among Western delegates, that the ethical question is, after all, only a technical and minor one not worth having a quarrel over. There is not any real difference of opinion among the mass of intelligent physicians upon the subject of consultations. An old member of twenty years' standing, who had signed the "Pledge," told me that he recently consulted with a homœopath, and with benefit to the patient. The great thing, he said, which keeps homœopathy alive out West is the antagonism and opposition it meets from us. We ought not to antagonize, but to absorb it.

The President in his address deprecated the criticisms upon medical colleges and medical men which have been so uniformly made of late. The subject of medical education came up, however, and it was shown that the members were not in sympathy with the President upon the subject. A decision was made that the subject be laid upon the table; but when it was shown that this decision had been made, without having the President's calling for the nays, on a full vote, the subject was kept before the Association, but not very much was done except to pass a resolution.

It required some courage for Dr. Packard to organize an opposition to the *Journal* management. He secured a hearing and a vote, however, despite some parliamentary opposition. I hear but one opinion as to the character and management of the *Journal* but it is unpleasant to antagonize a gentleman so respected as its editor, and besides, it is said that if not a model *Journal* it has done some good, and is better than the "Transactions."

I have seen a large number of Western men here; New York was also well represented, even better than Philadelphia, while Boston men were very few.

The work on the Sections was very uneven. There was a considerable change from the printed programmes, many of the best papers announced not being read, owing to the absence of the authors.

The Section on Practice was unusually good, the sections on Surgery and Obstetrics were above the average. The other Section meetings were, on the whole, poor. There were about 1,250 members registered.

* * *

The Association of American Medical Editors.—The annual meeting was held in Washington, May 5th. The annual address was delivered by Leartus Connor, M.D., Editor *Detroit Lancet*, President, on "The American Medical Journal of the Future, as Indicated by the History of American Medical Journals in the Past." Remarks were made by Dr. Shoemaker. The President received a vote of thanks.

Dr. N. S. Davis, of Chicago, opened the discussion on "How Far can Legislation Aid in Elevating the Standard of Medical Education in this Country?" It was participated in by Dr. Henry O. Marcy, Dr. William Brodie, and Dr. A. N. Bell. Dr. J. M. Toner invited the Association when it adjourned to meet at his house to discuss special subjects and things. Accepted. Officers for the ensuing year: *President*, Dr. H. O. Marcy, of Massachusetts; *Vice-President*, Dr. J. V. Shoemaker, of Pennsylvania; *Secretary*, Dr. Thomas F. Wood, of North Carolina. The meeting was well attended and was a success.

SECTION ON PRACTICE OF MEDICINE.

(By telegraph.)

TUESDAY, MAY 6TH—FIRST DAY.

The Section was called to order by the Chairman, DR. JOHN V. SHOEMAKER, of Philadelphia.

The first paper was read by DR. EDWARD G. JANEWAY, of New York.

SIMULATION OF PATHOGNOMONIC SIGNS AND SYMPTOMS.

In opening his paper, the doctor referred to the many mistakes which he had seen resulting from placing too much reliance on so-called pathognomonic signs. It is not many years since choked disk was considered pathognomonic of cerebral tumor. Now this sign is limited to an indication of increased intracranial pressure.

Tremor is often relied on as indicating multiple sclerosis. It is necessary first to exclude metallic poisoning and effects of alcohol before admitting that tremor is a sign of multiple sclerosis.

The speaker then referred to indications from coma. Some hold that changes in temperature indicate whether the coma is due to anæmia or to hemorrhage, but some claim an elevated temperature and others a normal temperature for the former. When the temperature is lower at the onset, and afterward becomes elevated, it has, in the author's experience, been a very positive sign of hemorrhage into the brain. Some would rely on presence of albumen and casts, but these are often present with hemorrhage.

In regard to pulmonary signs, the doctor had seen marked vocal fremitus in pleural effusion. He had also noted bronchial breathing in pleural effusion which could not be distinguished from the bronchial breathing of pneumonia.

The author also called attention to a condition of normal pectoriloquy.

In regard to double arterial murmur, supposed to be diagnostic between aneurism and a tumor pressing on the artery, the author had found this same sign in several cases of tumors pressing on the aorta. He then referred to the dyspnœa of Bright's disease, which is liable, from the cyanosis and great difficulty of breathing, to be referred to cardiac disease.

The presence of albumen in the urine was then spoken of, the author having found this condition in cases in which no other indication of renal disease was present. He reported a case in which albumen was sometimes present and sometimes absent. Hyaline casts may probably be occasionally present without indicating disease of the kidney.

DR. DONALDSON, of Baltimore, thought that there were points of distincion between the bronchial breathing of pleurisy and that of consolidation. The bronchial breathing of pleurisy is more pronounced in inspiration than in expiration. There may be serious disease of the heart without murmur. This is notably the case in large insufficiency of the mitral valve.

DR. LYNCH, of Baltimore, described a case of pleurisy in which bronchophony was very marked and in which he attributed the sign to the fact that the lung was bound down by adhesions to the diaphragm.

DR. AUSTIN FLINT, SR., of New York, read a paper entitled

THE CLINICAL STUDY OF THE HEART-SOUNDS.

He referred to a paper on the same subject which he had read before this Asssociation twenty-six years ago. He described five distinct sounds, two accompanying the diastole and three accompanying the systole of the heart, the diastolic sounds being the aortic and the pulmonic, the systolic sounds being the mitral, tricuspid, and the sound of impulse produced by the impulse of the heart against the thoracic walls. The doctor then described the position of these murmurs, illustrating his remarks by means of a diagram.

He next took up each sound separately and described the significance of various alterations in their force and character.

DR. F. C. SHATTUCK, of Boston, referred to the fact that it was supposed that the sound made by the contraction of the cardiac muscle assisted in the formation of the first sound of the heart. He also referred to the fact that in some cases of mitral stenosis in which there was no murmur there was reduplication of the second sound.

DR. JAMES C. WILSON, of Philadelphia, had been teaching this subject for some time in a way very similar to that described by Professor Flint. He had divided the sounds of the heart into four.

DR. MCSHERRY, of Maryland, referred to the pulse in disease and compared our present knowledge of diseases of the heart with that of thirty years ago.

At this point, a telegram announcing the death of Dr. S. D. Gross, was received. A motion to adjourn the Section was made but was not adopted.

DR. JOHN S. LYNCH, of Maryland, referred to the alteration of the second sound, especially the aortic sound in Bright's disease and in other degenerative diseases of the kidneys. He maintained that the booming character of the first sound of the heart was due to the vibration of the aortic walls.

DR. GARLAND, of Massachusetts: In referring to cardiac murmurs, Dr. Flint said that they were either coincident with or replaced the heart-sound. It is at times difficult to distinguish between the two, and yet it is often important to do so in regard to prognosis and treatment. He spoke of the importance in studying these cases of eliminating the respiratory movements, relating cases in which murmurs disappeared when the patient held his breath for a moment. Another deceptive murmur is one which is heard to the right or left of the sternum, up and down its border, and which is systolic in time. The peculiarity of this murmur is that it disappears on deep inspiration.

DR. DONALDSON thought it seemed questionable whether the impulse of the heart can produce a sound. He thought that it had been proven by experiment that the first sound of the heart was produced by the closure of the mitral and tricuspid valves. In regard to the so-called presystolic murmurs, it had been asserted with some plausibility that these were really not presystolic, but systolic.

DR. FLINT, in closing the discussion, stated that many of the points suggested had been in regard to the mechanism of the production of the heart-sounds and in regard to murmurs. He had intentionally not included these in his paper, and therefore waived any discussion of these points.

DR. LOUIS A. DUHRING read a paper entitled

DERMATITIS HERPETIFORMIS,

in which he described a rare disease, of which he had seen fifteen cases. The affection shows itself in a variety of ways, by patches of an urticarial or erythematous character, by herpetic vesicles, by blebs, by pustules, and by papules. All these lesions tend to take a herpetic type. These different conditions may be present at one time, or they may succeed each other. The disease is remarkable for the multiformity of its lesions. The author then went on to describe the different varieties of dermatitis herpetiformis—papular, vesicular, bullous, pustular, and multiform. These different eruptions are accompanied with violent itching and burning. It was considered to be a neurotic affection. The treatment is very unsatisfactory, and the disease may continue for years.

The paper concluded with the following *résumé:*

1. The existence is shown of a distinct, clearly defined, rare, serious, herpetic disease of the skin, manifesting itself usually in successive outbreaks, characterized by more or less systemic disturbance, a variety of pri-

mary and secondary lesions, and severe itching and burning.

2. The disease is capable of appearing in many forms, having a tendency to run into one another irregularly, the principal varieties being the erythematous, vesicular, bullous, and pustular, which may occur singly or together in various combinations.

3. The disease is protean in character and is remarkable for its multiformity.

4. The pustular variety is the same manifestation as that described by Hebra under the name "impetigo herpetiformis."

5. The term "dermatitis herpetiformis" is sufficiently comprehensive and appropriate to include all varieties of the disease.

6. It may occur in both sexes, and in women independent of pregnancy.

7. It usually pursues a chronic, variable course, lasting years, and is very rebellious to treatment.

The next paper read was by DR. JAMES T. WHITTAKER, of Cincinnati,

THE ETIOLOGY OF PERICARDITIS.

This disease frequently escapes recognition because its local symptoms are, as a rule, not marked. In order to show the frequency of its occurrence, some statistics were introduced showing that pericarditis occurred once in every 726 cases of all diseases. In 6 out of 32 cases it followed rheumatism, while in 26 cases it was dependent on other causes. Males are more liable to be attacked than are females. It is also a disease of youth and adult life. It is more frequent in those who work hard.

Two forms are described, consecutive or mechanical and infectious or mycotic. Any disease produced by micro-organisms may have pleurisy associated with it. The micro-organisms attack especially the serous membranes. This, perhaps, explains why pericarditis is so frequent in rheumatism.

DR. BURRIS, of Florida, agreed with the author in that impurities of the blood caused pericarditis or affections simulating it.

DR. PRENTISS, of Washington, being prevented by sickness from being present, his paper was read by title and referred to the Committee on Publication.

DR. BLACK, of Illinois, read a paper entitled

THE PRODUCTION OF POISONS BY MICRO-ORGANISMS,

in which, after an extended review of the subject, he summed up in the following conclusions:

First.—All cognizable forms of life are dependent upon the products of molecular change in matter for their continued existence.

Second.—Every cognizable form of life, capable of independent existence, must have the power of digestion, for the preparation of food-material for the nutrition of its material structure.

Third.—Each living cell must appropriate to its nutrition food-material prepared by a digestive body of its own, or by the appropriation of material prepared for it vicariously by some allied living cell.

Fourth.—Every living cell must support its life and material structure by a continued inhibition and remolecularization of matter within itself, except during special provisions of rest, as in the seed, egg, etc.

Fifth.—Every living cell must, as a result of the remolecularization of matter within itself, throw off waste products of two classes, a respiratory waste, rich in oxygen, and an urinary waste, poor in oxygen. All waste products are poisonous to the lives from which they emanate.

Sixth.—The natural organic poisons are uniformly waste products of the organisms in which they are formed.

Seventh.—Pathogenic micro-organisms by their remolecularization of matter, form poisons analagous to the vegetable alkaloids which are the active agents in the production of disease.

Eighth.—While I should not class the digestive ferments as diastase, etc., as organic poisons, they may act as irritants when applied to another form of life than that which produced them.

Ninth.—Normal tissues resist the invasion of the micro-organisms by throwing out matter calculated to destroy them or dissipate or nullify their action, aroused thereto by the presence of an irritant agent given out by the micro-organism.

DR. TRAILL GREEN, of Easton, Pa., read a paper entitled

THE NEW OFFICINAL CHLORATE,

in which he insisted on the great superiority of the chlorate of sodium over the chlorate of potassium. The former salt is much more soluble than the latter, being dissolved by one and one-tenth its weight of water. It is applicable to all the conditions in which the potassium salt is of service. The doctor went on to describe some of the special diseases in which he had employed it.

DR. CALDWELL, of Baltimore, had also used chlorate of sodium with satisfaction.

WEDNESDAY, MAY 7TH—SECOND DAY.

At 2.30 P.M., the Section was called to order.

A PERIODICALLY PAINFUL AFFECTION, BELIEVED TO BE LOCATED IN THE LIVER, ITS CAPSULE, OR BOTH, OR POSSIBLY A TRUE IRRITATION OF THE CAPSULE OF GLISSON,

was the title of the paper read by DR. R. HARVEY REED, of Mansfield, O. He referred to a number of cases presenting a peculiar train of symptoms, which he considered to be due to a rheumatoid irritation of a part or all of the connective tissue which forms the inner tunic of the liver and envelops the portal vein, hepatic artery and duct, together with the lobules of the liver. The disease is characterized by a burning, boring, throbbing, darting, or lancinating pain. This, as a rule, comes on at night. No evidence of inflammation has been observed.

The affection was supposed to be attributable to sedentary habits, and it had not been seen in intemperate or syphilitic persons. It comes on gradually with a little pain in the abdomen, but this increases in severity until the condition of the patient may appear alarming. The attacks are periodical, and may return once a month or oftener, sometimes recurring as often as every night. If they are not relieved by treatment they may continue for months or years.

The diagnostic points, differentiating this affection from hepatic colic and other hepatic diseases, were next referred to. The prognosis is entirely favorable.

Under a proper plan of treatment the disease usually disappears in a few weeks. The treatment should consist in the use of alkalies and bitter tonics, for instance, a teaspoonful of bicarbonate of sodium, with five grains of powdered hydrastis Canadensis, in half a glassful of water before meals, or sulphate of sodium with sulphate of hydrastia. Mercurials do more harm than good, and anodynes are to be administered only when the pain is so severe that their use cannot be dispensed with.

The speaker then gave a detailed report of three cases, which had been selected from a series of twenty-five cases occurring under his observation.

DR. CAULDWELL, of Baltimore, was interested in discovering the function of the capsules of the liver and other organs. He was sorry that the scope of the paper did not allow of discussion of this point.

DR. WILLIAM PEPPER, of Philadelphia, read a paper on

EPILEPSY.

In considering epilepsy, cases which are due to organic causes, as tumor, should be excluded, but it is often diffi-

cult to decide whether or not such causes exist. The author then went on to speak of the analogies between hysteria and epilepsy. Both these affections represent conditions of malnutrition with morbid irritability of the nerve-tissue. In hysteria, the ganglionic gray matter is especially vulnerable, while epilepsy is probably dependent upon an unstable condition of one or more areas of the gray matter within the brain.

The most prominent factors in bringing about this condition are, heredity, nervous exhaustion, shock or sudden powerful impressions, sunstroke, purely psychical shocks, disturbed nutrition of the brain from instability of the circulation, as in heart disease and anæmia, possibly minute emboli, and peripheral irritation especially of the gastro-intestinal canal.

A consideration of the different cases usually classed under the head of epilepsy shows that these cases are not afflicted with a single, definite disease, and that they exhibit in common merely impaired nutrition and irritability of the gray matter. The effects of habit have a decided influence in keeping up attacks of epilepsy.

The degree of instability varies in these cases. Some are only affected by a very powerful influence, while in others the slightest cause is sufficient to induce the seizures. Although provoking causes may not be found in all cases of epilepsy, yet if they are carefully sought for they will frequently be found. Among the most common provoking causes are indiscretions in diet and improper food. These may act by exciting local irritation, or possibly may induce a condition of toxæmia, from the entrance into the blood of imperfectly elaborated materials, or from the failure of the emunctories to remove certain injurious products. A close analogy was traced between many of these cases of epilepsy and certain cases of vertigo in lithæmic patients.

Where the trouble with the nervous system has resulted from insolation, exposure to the rays of the sun or intense light may induce the attacks. When there is associated cardiac lesion with the epilepsy, exertion or excitement of the circulation may bring on the seizures.

Dr. Pepper took exception to the statement frequently made that epileptics are in full health. He usually found derangement of some important function.

The principles of treatment follow from the consideration of the points referred to. No one plan of treatment is applicable to all cases. The primary and provoking causes should be removed when possible. Anæmia, neurasthenia, and morbid susceptibility are to be relieved. Intestinal irritation is to be cured. In such cases nitrate of silver is often of great benefit. Overexertion, especially in cardiac cases is to be avoided. Counter-irritation with the actual cautery is of decided value, especially in those cases in which intracranial irritation is suspected. Where circumscribed lesion of the cranial bones is supposed to exist, trephining may often be used with advantage. Irritation of the genital organs is to be relieved. The attacks should be arrested, for if they are allowed to continue they increase the liability to subsequent attacks. Particular attention is to be paid to the diet, which is to be suited to the needs of each particular case.

Among the drugs mentioned as of service are the bromides, belladonna, assafœtida, chloral by enema, iron, and tonics. The bromides are of decided value, but in their use caution is to be exercised, for they frequently fail, are often abused, and may even be injurious.

Dr. Austin Flint, Sr., New York, maintained the doctrine that the manifestations of epilepsy are dependent upon a toxical agent of some kind produced somewhere within the body. He presented the following points in favor of this view.

1. The absence of any generally received pathological doctrine.

2. There is close analogy between the phenomena of epilepsy and other diseases known to be produced by toxical causes.

3. Certain facts pertaining to the clinical history are more readily accounted for on the view of a toxicalagent.

4. Facts pertaining to the therapeuties of epilepsy favor the doctrine of toxical causation.

Dr. Eugene Grissom, of North Carolina, referred, in speaking of the treatment of functional epilepsy, to the importance of careful attention to diet, regulation of exercise, and avoidance of fatigue. The remedies to be used depend in part upon the provoking cause.

Dr. James F. Hibbard, of Indiana, stated that he thought that if all cases in which an exciting cause was discovered were put to one side, epilepsy was never cured. Certain drugs, notably the bromides are useful in ameliorating the condition. A toxical causation has been suggested, but even if this be so there must be some underlying convulsive diathesis.

Dr. J. J. Caldwell, of Baltimore, thought that Dr. Flint could not consider those cases which lasted for years as due to a toxical cause, for toxical causes must have an ending some time. He referred to cases in which epileptic seizures had disappeared upon the occurrence of attacks of gout.

Dr. James Tyson, of Philadelphia, referred to the value of the use of a seton through the nape of the neck in certain cases. In one case fifteen years had elapsed since the last seizure.

Dr. Bartlett, of New York, had also seen good results from the seton, and reported cases which had remained well for four years. He deprecated the injudicious use of the bromides.

Dr. Pattee, of Massachusetts, spoke in reference to the use of the bromides of different bases according to the condition associated with epilepsy. In plethoric cases he employs bromide of potassium; in anæmic cases, bromide of sodium or iron, and in cases associated with gout, the bromide of lithium. In other cases associated with gastric or intestinal irritation, he has used wine of ipecac in five-drop doses every three hours, with advantage. He has cured cases by means of purely psychical influences, as for instance, the use of the spirometer.

Dr. Pepper, in concluding the subject, stated that he was glad to be supported by the distinguished gentleman from New York as regarded the toxical character of certain cases, but did not think that this would explain all the cases of epilepsy.

Dr. James C. Wilson, of Philadelphia, read a paper on

THE DIAGNOSIS OF TUMORS OF THE ANTERIOR MEDIASTINUM,

in which he considered the various forms of tumors which invaded the mediastinum, and, taking up each separately, gave the points of importance in its differential diagnosis.

Dr. William H. Welch, of New York, read the next paper,

THE PATHOLOGY OF MYOCARDITIS.

He referred to the want of attention which had been paid to affections of the muscular wall of the heart, and of those diseases of the cardiac muscle which had been considered, the most important had been the least studied. This is myocarditis. He then described the different forms of this condition, and gave the microscopical appearances. He directed attention to the importance of partial occlusion of the coronary arteries in the causation of this condition of the heart-muscle, which is not strictly the result of inflammation, but of atrophy and degeneration, due to insufficient blood-supply. A number of cases were related in support and in explanation of his views.

Dr. Austin Flint, Sr., of New York, had met with cases in which the most careful examination revealed no physical signs of disease. In one case he had made the examination a number of times with negative results. The patient died suddenly, and at the autopsy obstruc-

tion of the coronary arteries was the only condition found to explain the sudden death.

Dr. McSherry, of Baltimore, reported a case supporting the views of Dr. Welch.

Dr. Donaldson referred to the great advantage which would follow some method of diagnosing this condition, and asking if some information could not be obtained by means of the sphygmograph or an examination of the other arteries.

Dr. Janeway, of New York, thought that the most that could be done in the way of diagnosis was to discover weak heart. If there was endo-arteritis in other arteries, it would favor the idea that the same condition was present in the coronary arteries.

Dr. Gaspar Griswold, M.D., M.R.C.S., New York City, read a paper entitled

IRREGULAR APOPLECTIFORM ATTACKS FROM OTHER CAUSES THAN HEMORRHAGE OR EMBOLISM.

In introducing the subject the doctor stated that in his paper he should apply the term apoplexy to denote the sudden onset of a set of symptoms of which unconsciousness, hemiplegia, and convulsions were the most marked. In using this term apoplexy he did not refer to any special cause for these symptoms. Apoplexy may be due, as all know, to cerebral hemorrhage, embolism, and thrombosis. In such cases pathology has enabled us to differentiate with considerable certainty between these different affections, but in the case of functional interference with the circulation of the brain, post-mortem studies cannot afford much assistance. It is therefore necessary, in considering affections due to this cause, to depend on experiment and clinical observations. Heart-failure, or vaso-motor nerve disturbance, will cause anæmia of the brain, and this may show itself by coma and convulsions. In such cases the symptoms often resemble those due to hemorrhage, thrombosis, or embolism, and this is not at all surprising, since in these latter cases the symptoms are to a large extent due to disturbance of the cerebral circulation. It is often difficult, from the symptoms alone, to differentiate between apoplexy due to an organic cause, and apoplexy due to functional derangement of the circulation. There is, however, a great diffence in the persistence of the symptoms. In the early stages a mistake is almost unavoidable, and often the recovery of the patient is the only thing which enables a correct diagnosis to be made. Four cases were then related in which an erroneous diagnosis had been made either by the author or some other physician. In all these cases there was a distinct attack of apoplexy, and in all the patients recovered.

Dr. Janeway, of New York, reported two cases similar to those related by Dr. Griswold, in which the apoplectic attacks resulted from the excessive smoking. In both recovery followed the giving up of this habit.

Dr. Austin Flint, Jr., of New York, thought that we were coming to attach more importance to alterations of the circulation of the brain, and he reported some physiological experiments in animals, which showed that when the blood-supply of the brain was diminished convulsions frequently ensued.

The paper of Dr. W. L. Schenck, of Kansas, was read by title. The following is an abstract:

OCCULT CAUSES OF DISEASE.

He gives a review of the history of germs in disease, and says that if bacteria be the cause of disease, we should expect these diseases produced by germs to be universally present, because the germs are found at all times. The ground where yellow fever patients have been buried has been found a year later to be teeming with bacteria, and he asks, if the cause was present why was not the disease?

He next referred to the fact that any effects attributed to germicides administered internally could not be due to their action, for it would take eight pounds of carbolic acid to make a mixture in the body of five per cent. strength, and of the mercuric bichloride twenty-three grains would be required to put the fluids in the body in a condition to be injurious to these germs. The success of germicides in the treatment of disease must be attributed to some other action.

The best success has been attained by surgeons and obstetricians who have not used antiseptics with any germicide intent. If germs are not even occult causes of disease, it is well to recognize the fact that microscopists may seek more efficient fields of labor than classifying micrococci, and therapeutists larger game than microzones.

Thursday, May 8th—Third Day.

Dr. A. Flint, Jr., read a paper on

THE DIETETIC TREATMENT OF DIABETES MELLITUS.

In the first place the writer referred to the fact that in a small proportion of cases sugar in the urine is found in apparently healthy individuals. Sugar may be present in urine of normal or low specific gravity and quantity. He believed that the liver was a sugar-producing organ. This sugar is washed out by the blood as rapidly as it is formed. He believed that if the case were taken in time, and the patient would submit to certain measures, it is possible to effect a cure, or at least remove the symptom, with the exception, perhaps, of the occasional appearance of sugar in the urine. He divided treatment into dietetic, general, and medicinal. Dietetic consists in avoidance of all substances containing sugar or starch; after sugar has been absent for two months the patient may gradually return to the use of ordinary diet. During this time the urine should be examined every five or six days, alcohol must be avoided, regular muscular exercise should be insisted upon. The doctor has found the solution of arsenite of bromine of service, but the most reliance must be placed on diet. If these points are attended to, the prognosis in recent cases in adults is favorable. The most unfavorable cases are those in which disease appears before puberty.

PHTHISIS, ITS SUCCESSFUL TREATMENT,

was read by title by J. P. Miller, M.D., of Buckhannon, W. Va. After briefly referring to the bacillus tuberculosis and the theory of Koch, and stating his belief that this theory would not aid in preventing or curing phthisis, the author went on to describe the climate and position of the region in which his practice lay. Buckhannon is situated 1,600 feet above tide-water, and the climate is remarkable for its humidity and the sudden and great changes of temperature which occur. These are especially marked during the winter and spring. A fall or rise of from 35° to 50° F. in twenty-four hours is not uncommon, and a rise of 64° in nine hours has been noted. Owing to these climatic conditions diseases of the respiratory organs are of frequent occurrence, and on account of the success which he had obtained in the treatment of phthisis the speaker placed himself in opposition to the common belief that phthisis was an incurable affection.

The treatment was next spoken of. In the treatment of high temperature of phthisis florida, the salicylate of sodium, in doses of grs. xvj. to grs. xxiv., had been found to be the most servicable antipyretic. When diarrhœa was present, from one-fourth to one-half a grain of morphia was added to each dose of the salicylate. The antipyretic should be given during the remission of the fever, and shortly before the exacerbation.

To relieve nausea and vomiting the following prescriptions are used according to circumstances:

℞. Acidi carbolici ..... 3j.
Tinct. iodini ..... 3ij.
M. Sig.—Three drops in water, before food, three times a day; or,

℞. Strychniæ..... gr. j.
Acid. nitromuriat. dil. ..... ℥ ss.
M. Sig.—From four to eight drops, given as in the previous case; or,

Fowler's solution in doses of not more than three drops will often have the desired effect. If there is diarrhœa, from three to six drops of deodorized laudanum should be added to each dose. Mustard plasters over the stomach may also be used. Digestion may be assisted by the use of dilute hydrocholoric acid before meals, followed with pepsin after meals.

The speaker then referred to the good effects which he had obtained from the use of yerba santa in causing the softening, absorption, and extrusion of caseous or tuberculous matters. For these purposes it has no equal in the Materia Medica. In the early stages of phthisis where there is gastro-hepatic and duodenal catarrh, it answers every purpose. In cases of pyrexial phthisis, where various antipyretics had been tried without effect, the continuous use of yerba santa has reduced the temperature from 105° to 99° in the course of a week. Yerba santa has the effect of inducing sweating, and in this way serves to reduce fever. In cases where the temperature is normal or below normal, picrotoxin, or strychnia and atropia, may be used if the night-sweats are copious.

Counter-irritation is of the greatest importance, and even where the patient is weak and anæmic good results will often follow the use of a blister. In incipient cases iodide of iron and cod-liver oil are of service in causing the disappearance of the exudation. This may be administered with Trommer's extract of malt.

When there is a catarrhal process extending to the alveoli from the bronchi, the iodide and carbonate of ammonium have a beneficial influence. They may be given as follows:

℞. Ammon. iodidi ..... ℥ j.
Ammon. carb ..... ℥ jss.
Syrup. tolu.,
Aquæ, āā..... ℥ ij.
Sig.—A teaspoonful every four hours.

The doctor then referred to the fact that in addition to administering drugs it was important to protect the patient from outside influences which would tend to depress the mind, such as the anxiety of friends and the superstitions of neighbors.

In concluding the author said: "Time and other observers may reverse the verdict, but I cannot help feeling that these adverse influences successfully guarded against, conjoined with the remedies and methods herein recommended, boldly, skilfully, and persistently applied, will prove the means of curing a high per cent. of that form of thoracic degeneration which has hitherto baffled our science and is a standing opprobrium to our profession."

The following papers were then read by title: "The Milk Treatment of Disease," by Dr. James Tyson, of Philadelphia, and "Bright's Disease of Malarial Origin," by Dr. J. E. Atkinson, of Maryland.

Dr. Henry F. Formad, of Philadelphia, then read a paper

ON TUBERCULOSIS.

He first considered the question of the contagiousness of tuberculosis, and after presenting an extended review of the evidence *pro* and *con* on this point, concluded that tuberculosis was not a contagious disorder, and those cases in which such appeared to be the case could be explained on other grounds. In regard to Koch's theory and the bacillus tuberculosis, he admitted that Koch's observations were correct, but he thought that his conclusions were not warranted. A great deal more work is necessary before this question can be considered settled. It has been shown by competent men that the bacillus is not invariably present in tuberculosis matters, and further, that it is not usually present in the beginning of the disease, but is found chiefly in the disintegrating products of tubercle. The bacillus is often found in only very minute quantities. It is not proven that the disease produced in animals is identical with that which exists in man. Some of the products produced in these experiments may not be tubercular but simply be mistaken for tubercles. Tubercles may be produced by other things than the bacillus tuberculosis, and conditions presenting the anatomical and other characteristics of tuberculosis may be present without the bacillus being discovered. He thought that the parasitic etiology of tuberculosis was not proved and that the adoption of this view was liable to do more harm than good.

Dr. Austin Flint, Sr., thought that it was pretty positively proven that the bacillus tuberculosis held a causative relation to tuberculosis, and it is opposed to all analogy to suppose that tuberculosis could be produced by any other cause. Other causes may, and undoubtedly do co-operate with it, but the presence of this specific agent is essential to the production of the disease.

Dr. William H. Welch said that Koch had claimed that all the essential conditions had been complied with in his experiments. He thought that tuberculosis was caused by the bacillus, and in all probability by that alone. When the difficulty which attends the discovery of detection of the bacillus is considered, it is not to be wondered at that at times it might escape notice. Of late Koch has found it in all tubercular lesions examined. The essential question is, whether tuberculosis can be produced by nothing else than the bacillus. The weight of evidence is in favor of the view that phthisis can be produced by the inoculation of no other than tuberculosis matters.

Dr. George M. Sternberg, U.S.A., had performed some experiments, but they had not satisfied him in regard to this matter. He thought that the view that the bacillus might act as a local irritant was worthy of consideration. He referred to the possibility that in the experiments of Formad the animals in whom tuberculosis had followed the inoculation with other substances than bacilli, might have the condition developed in consequence of improper surroundings. He was not satisfied that Koch's culture experiments on the surface of sterilized substances were to be relied upon.

Dr. R. P. Fitz, of Massachusetts, thought that pneumonia and other conditions found in the lung might be due to the bacillus.

Dr. Tyson thought that the evidence in favor of Koch's view was very strong, but before deciding in the matter it would be necessary to wait until it was decided whether the views of Koch as formed were the correct ones.

Dr. Janeway stated his belief in the contagiousness of phthisis, and cited cases supporting his opinion.

Dr. Chas. Dennison, of Colorado, exhibited a chart showing the geographical distribution of phthisis and pneumonia in warm and moist climates, while in cold and dry atmospheres these diseases were more rare.

Dr. Belfield could not accept the view that phthisis was due to bacteria.

Dr. Shakespeare, of Philadelphia, thought that it had been proved that nothing but the tubercle bacillus could produce tuberculosis. Dr. Formad had in another paper attributed the liability of certain animals to tuberculosis to certain peculiarites of the lymph-spaces, but he had in the same paper stated that in such animals the perivascular lymph-spaces were not altered. It is well known that it is in these spaces that tubercle first makes its appearance.

Dr. G. C. Smythe, of Indiana, thought that tuberculosis might belong to the local infectious affections, such as syphilis and leprosy.

Dr. H. C. Ernst, of Massachusetts, agreed with the views expressed by Drs. Welch and Fitz, and added some remarks in regard to the different methods of staining the tubercle bacillus. In these investigations nothing less

than an immersion lens and a substage illuminating apparatus was to be relied upon.

Dr. Wm. Pepper did not believe in the contagiousness of phthisis.

Dr. G. Traill Green did not accept the view that consumption was due to a parasite, and he referred to cases in which consumption had developed in perfectly healthy individuals in consequence of working in a grindstone manufactory.

Dr. Formad, in concluding, said that he would not occupy time, except to say that the animals on which he had experimented had been kept under the best hygienic surroundings.

The following papers were read by title: "Retardation of the Pulse in Mitral Insufficiency," by Dr. A. T. Keyt, of Ohio; "Etiology of Enteric Fever," by S. K Crawford, M.D., Illinois; "New Theory and Instrument of Diagnosis," by L. G. Ayres, Pennsylvania; "The Advantages of Massage in Rheumatic Gout," by Douglass Graham, of Massachusetts.

Also the following:

THE SPECIFIC TREATMENT OF DIPHTHERIA AND CROUP,

by George A. Linn, of Monongahela, Pa.

The writer considered that we had a specific for diphtheria in the corrosive chloride of mercury. In order to obtain this effect it is necessary to give the remedy in large doses in the early stage of the disease. The dose for a child three years of age is from one-twentieth to one-twelfth of a grain; for an adult, one-twelfth to one-eighth of a grain every three hours. In mild cases it should be continued for three days, and in malignant cases for two or three days longer. It is best given in solution, and a good vehicle for administering it is elixir of pepsin or elixir of pepsin and bismuth.

If this treatment be instituted at the commencement of the disease no tonics or sustaining treatment will be required; but if the disease has lasted for some time, brandy and iron are to be also employed.

In cases where the membrane invades the larynx, there may be danger of suffocation, but this is due more to spasm than to the presence of the membrane. For this condition the author considers the chloride of gold to be a specific. It has no taste, produces no nausea, and acts like a charm. The dose for a child two years of age is from one-fiftieth to one-thirtieth of a grain every hour until relieved. It should be given dissolved in distilled water, and should not be brought in contact with a metal spoon. For simple croup the author regards this as a specific. In diphtheritic croup the bichloride of mercury should be associated with it.

MUSCULAR HYPERTROPHY OF THE STOMACH,

by Dr. Alexander Marcy, Jr., of Riverton, N. J.

He described the post-mortem appearances of a case of this affection coming under his own observation. The stomach was greatly reduced in size. It was 12.5 ctm. in length, 3.75 ctm. in diameter at the pyloric extremity, and 4.35 ctm. at the cardiac end. The capacity of the organ was not more than 60 c.c. In the centre of the organ was a constriction through which the little finger could scarcely be passed. This was due to a fibrous band, on each side of which there was a stellate cicatrix. The wall of the stomach was much increased in thickness. This thickening had also involved the duodenum and extended to the common bile-duct, so that it was completely occluded. The microscopical examination showed the thickening to be principally due to a great overgrowth of the muscular tissue, which was about three times its normal thickness. Newly formed connective tissue was also found. In the submucous layer there was found, in addition to some increase in the connective tissue, an overgrowth of smooth muscular fibre.

The writer considers this a rare condition, and one not usually referred to by authors. In conclusion, he referred to the fact that there were no symptoms peculiar to this disease, and that the treatment could be only palliative.

TREATMENT OF TYPHOID FEVER,

by S. K. Jackson, M.D., of Norfolk, Va.

The author stated that he desired to call attention to a method of treating typhoid fever which was based on a pathological condition, the existence of which had long been recognized, but which had never been taken as an indication for treatment. For thirty-five years he had been treating all cases of typhoid fever in this manner, and had never had any reason to be dissatisfied with it.

In the author's estimation the most prominent and important pathological condition in typhoid fever was the nitrogenous waste, the deficiency of all the nitrogenous excretion. The non-excretion was no proof of the retention of these products in the system. If such were the case, symptoms of uræmic poisoning should be developed. These products were not excreted because they were not formed. This non-formation was attributed to two factors. The first was that, owing to the deficiency of the gastric secretions, nitrogenous articles could not be digested. A second possible, if not probable, cause is the consumption of nitrogen by the parasitic organism which is the acknowledged etiological factor in the production of enteric fever. This parasite is a nitrogen feeder. It thrives on nitrogenous matters. This is further shown by the ammoniacal exhalations of the typhoid-fever patient. These exhalations result from the decomposition of nitrogenous matters produced by the parasite. This waste cannot be replaced with nitrogenous food, for the stomach is unable to digest such articles. The author therefore attempts to overcome the difficulty by the free administration of ammonia, giving it even to saturation. The great variety in the therapeutical action of the different salts of ammonia makes it possible to use one or other of its combinations at any stage of the disease.

Ten or twelve grains of the nitrate of ammonia, administered every two hours, is sufficient to reduce the temperature to 102°, and to keep it there. After the disease is farther advanced, the acetate of ammonia may be used. If there is diarrhœa, acetate of lead and opium should also be employed. When nervous symptoms show themselves, the carbonate of ammonia with chlorate of potash was recommended. If coma appears, five grains of chloride of ammonia exerts a remarkable effect, and in no case had coma occurred where this plan of treatment had been adopted at the outset. The delirium is relieved by the use of ammonia, provided it be given in sufficient amount.

The use of the chloride of ammonia to relieve the coma of typhoid fever was suggested by the theory that this condition is due to thickening of the envelope of the blood corpuscles to such an extent that the brain was not sufficiently well nourished. The object of using the ammonia salt was to dissolve this thickened envelope. Although this might not be the manner in which the chloride of ammonia exerted its effect, still its action was decidedly beneficial.

The doctor had abandoned the use of quinine. He did not consider it a proper germicide for typhoid fever. It was well suited to destroy the malaria parasite, because this organism was a carbon feeder. Quinine is rich in carbon, and was given in accordance with the law that no organism can live in its own excreta, in the results of its own life processes. If, as in typhoid fever, ammonia is the excreted product, then ammonia is the best germicide.

The doctor went on to state that if the disease were recognized by the third day, it might subside at the end of the first septenary; if the disease is not recognized until the fourth or fifth day, it will not be broken before the end of the second septenary. If the treatment has not been begun before the beginning of the second septenary, the fever will not yield before the twenty-first

day, but it is almost absolutely certain that it will yield then.

In regard to diet, the doctor insisted on an exclusively milk diet. No starchy matters should be allowed, and animal broths should not be given until the latter stages of the disease, or until there are evidences of the secretion of the gastric digestive fluids.

Dr. Henry O. Marcy, of Boston, presented a

REVIEW OF THE GERM THEORY OF DISEASE,

in which he related a number of original experiments which had been undertaken to prove the truth or falseness of certain theories in reference to the action of the liquid ambient matter. It had been asserted that unless a well-washed bacillus be placed in a sterilized nutrient fluid, it was impossible to determine what was due to the germ and what to the liquid ambient matter. In about fifty experiments Dr. Marcy employed different kinds of nutrient matters, including blood-serum, the white of fresh eggs, and fresh milk, and tried to determine their germinal qualities. These experiments failed to show that these materials possessed any germinal powers, and that they simply served as nutrient fluids. Previous experiments made by filtering the fluids from anthrax and injecting them into healthy animals had proven the same thing.

In order to establish the relation between these germs and disease, it is necessary to separate the organisms from other materials and prove that they produce the particular disease. The best method to free the germs from surrounding matters was considered to be the culture test. If, as had been shown by the author, the liquid ambient matter did not reproduce, in two or three generations, the germs would be practically freed from the original matter which surrounded them. Taking a geometric series of one-hundredth, the third bulb would contain only one-millionth of the original matter.

The methods employed by the doctor had been various, sometimes the mechanical occlusion of blood-vessels, sometimes deoxidization of the blood, chemical changes, and so on. Particular attention was directed to the condition of the individual attacked, the most favorable conditions being those of debility. Especial reference was made to tubercle, diphtheria, and erysipelas. In reference to the last a series of original experiments were reported, including a number of culture tests, inoculation experiments, and so on.

The Section then adjourned.

SECTION ON SURGERY AND ANATOMY.

(By telegraph.)

Tuesday, May 6th—First Day.

First day's session held at the hall of the National Rifles' Armory, 920 G Street, Tuesday, May 6, 1884, at 2.30 P.M., Dr. C. S. Parkes, Chicago, Chairman, presiding.

After a few remarks upon the subject by the Chair, the Section by vote decided that the time allowed each member in which to discuss any paper read should be limited to five minutes.

Dr. Frederick S. Dennis, of New York, read the first paper of the session, on

TREATMENT OF COMPOUND FRACTURES,

and laid down as the three short but great rules of successful treatment: 1, Immediate fixation; 2, absolute cleanliness; 3, free drainage when necessary. These carefully maintained were, he thought, better than the unnecessary minutiæ of Listerism, and in good hands sure to produce the best results.

He claimed that many fractures with simple laceration of soft parts were called compound when they really did not belong to that class, and it should always be remembered that entrance of air to the seat of bone injury is a necessary condition in a compound fracture. Dr. Dennis reported 128 cases of compound fractures recovering sufficiently from shock to allow his treating them in two of the large hospitals of New York, dividing them into regional injuries, the classes being as follows: 23 of the cranium, 17 recovering; 3 cases of the thigh, no deaths; 48 of the leg, all recovering, in 3 cases the protruding bone requiring excision by the saw; 10 of the arm, all recovering; 13 of the forearm, all recovering, save one; 30 miscellaneous, all recovering; 95 of all kinds occurring consecutively without death.

Professor S. D. Gross was announced as having died three hours before, and on vote the Chairman appointed Drs. Kellar, of Arkansas, Sayre and Flint, of New York, and Kinloch, of South Carolina, as a committee to prepare resolutions of respect and sorrow, suitable to the occasion, and present them to the Section at the next day's session.

By unanimous vote the Section then adjourned as a mark of respect to the memory of the lamented surgical teacher.

Wednesday, May 7th—Second Day.

Dr. T. R. Varick, of New Jersey, read a paper

ON RAILROAD INJURIES OF THE EXTREMITIES OF THE HUMAN BODY, WITH OBSERVATIONS ON THE SITE OF AMPUTATION AND SUBSEQUENT TREATMENT OF THE STUMP,

in the course of which he said that traumatism is not confined to the immediate part struck, but usually extends far beyond, and great care should be taken to thoroughly examine the parts for bruised subcutaneous tissue, at a considerable distance from the apparent seat of injury. Two causes for this were,

First.—Muscles ruptured by their own contractile efforts, as the victim, immovably fixed at one point, struggles to free himself.

Second.—The pulpification of the tissues, producing a scattering of the liquids contained therein.

He believed that the common cause of death in railroad injuries, when shock occurs, is due to the forcing back of the venous blood to the right side of the heart, producing paralysis of that organ. The after-dressing of the stump by almost hot water, the keeping open the flaps after amputation as long as any oozing is perceptible, free drainage by tubes, irrigation by means of a thymol solution, and an outer dressing of oakum, was the general form of practice adopted by the writer, and he felt that his statistics would bear criticism, or comparison with those of other surgeons. The doctor concluded by reporting twenty-one major amputations without a death, all but two being compound comminuted fractures produced by railroad injury.

Dr. Quimby, of New Jersey, made a few remarks in relation to the concussion of the internal organs from railroad injury.

THE DEATH OF PROFESSOR GROSS.

Prof. Lewis A. Sayre, of New York, then read the report of the special committee appointed to draw up resolutions in relation to the death of Professor S. D. Gross, as follows:

Resolved, That the members of the Surgical Section of the American Medical Association have received with a sense of profound regret the intelligence of the death of Prof. Samuel D. Gross, of the State of Pennsylvania, one of the greatest ornaments of this Association, and one of the most distinguished teachers and authors in the medical profession of the United States.

Resolved, That the memory of the deceased deserves to be cherished with love and veneration by the members of the medical profession as that of a man profoundly versed in medical science, and worthy to be ranked with the greatest and ablest of our age and country.

He had mastered the vast learning of his profession, and the natural kindness of his great and generous heart was such, that throughout his long and successful career as a practitioner he was continually experiencing the most intense satisfaction and pleasure in relieving by his science the suffering of humanity.

Resolved, That these resolutions be entered upon the journal of the proceedings of this Section, and that the chairman transmit a copy to the family of the deceased.

Dr. J. Kellar, *Chairman*.
Dr. Austin Flint, Jr.
Dr. Lewis A. Sayre.
Dr. R. A. Kinloch.

The report was adopted by the Section and the committee discharged with thanks.

Dr. J. W. S. Gouley, of New York, by special vote of the Section, presented a specimen of pieces of a

CALCULUS FRACTURED SPONTANEOUSLY IN THE BLADDER

of a patient, and evacuated *per viam naturalem*, and explained at some length what he thought might be the cause of the so-called spontaneous fracture of stone in the bladder, namely, molecular action.

Dr. Lewis A. Sayre, of New York, thought that a calculus could not fracture spontaneously, and then asked the doctor some questions in relation to the fracture.

Dr. Ford Thompson, of Washington, who attended the patient from whom the calculus came, announced that he had some doubt of this being a case of spontaneous fracture.

Dr. J. C. Hutchison, of Brooklyn, also reported a case of what he believed to be undoubtedly a spontaneous fracture of a mulberry calculus.

Dr. Prewitt, of St. Louis, did not believe in the possibility of fractures of stones he had seen.

Dr. Pollock, of Pennsylvania, reported a case which might have been one of fracture.

Dr. Dawson, of Ohio, thought spontaneous fracture could not occur.

Dr. Gouley then replied to the criticisms offered by some of the members.

Dr. C. A. Wheaton, of Minnesota, read a paper on

AMPUTATION AT THE HIP-JOINT,

with a review of the various methods of controlling hemorrhage, in the course of which he gave a history of the different important devices for preventing bleeding from the iliac during and after the amputation. He did not like digital pressure as sometimes employed, and thought that the abdominal tourniquet was too apt to make pressure on the important organs, nerves, etc., of the parts. Lever instruments were spoken of, and reference made to peritonitis being induced by the rectal lever. The instrument known as Trendelenburg's trocar was noticed and its use explained. Jordan's amputation was fully explained—it being a modification of Dr. Abernethy's method. Lloyd's mode of using an India-rubber band to stop pulsation in the femoral, and in branches of the iliac, was carefully explained. He thought very highly of this method, as it was applicable both to amputation at the joint and excision of the head of the femur, and he had used it himself successfully in two cases within the past year, availing himself additionally of the means of safety given by Esmarch's bandage. He believes that Lloyd's method will prove a great boon to the surgeon, giving him more ease and boldness, as well as being the means of saving many lives.

Dr. Varick, of New Jersey, made a few remarks upon the paper just read, and exhibited a Trendelenburg's rod or trocar, which he had had made from a description of the instrument which he had read in foreign journals, and which he believed to be the first one made in this country. He had used the instrument successfully in one case, modifying in a slight degree the method of using it recommended by the inventor.

Dr. Byrd, of Illinois, has used Lloyd's bandage as described, but uses a larger tube or elastic, and is very decidedly in favor of its use, fully agreeing with Dr. Wheaton in the great benefit to be derived from this method.

Dr. Murdock, of Pennsylvania, discussed hip-joint operations, referring to Shipman's mode of operating.

Dr. Dawson, of Ohio, in a case of the kind used an assistant's hand in controlling hemorrhage, and thinks that in the future this operation can be made free from much of the risk of bleeding heretofore incurred.

Dr. McGraw, of Michigan, gave his experience in hip-joint amputations, giving a case where he had used the rectal lever with success. In his last three cases of this operation, two had made a good recovery.

Dr. McLean, of Michigan, uses the abdominal tourniquet in his amputations at this joint, and always succeeds in controlling the hemorrhage during the operation.

Dr. Roberts, of Pennsylvania, made a few remarks concerning the date of using different means of preventing bleeding during this amputation.

Dr. Wheaton, in closing the discussion, gave his reasons for not using some of the means suggested by other members.

Dr. William A. Byrd, of Illinois, read a paper on

AN EARTHY CALCULUS IN THE SUBSTANCE OF THE LIVER,

in the course of which he gave a full history of this very unique case. The patient was a male, aged about thirty years, who had been ill four months, apparently from malarial fever. Dr. Byrd opened the painful point over the liver, supposing it a simple abscess of the liver. In the course of his probing it one day, he discovered the presence of a hard substance, and extracted a calculus weighing 115 grains. The reader did not wish to state positively what the origin of the stone was, and desired to know, but no member could give information on the subject.

Dr. W. Senn, of Wisconsin, read a paper entitled

ON BRANCHIAL CYSTS OF THE NECK,

and, after giving a list of the different forms of cysts of the region named, discussed the etiology and pathology of the branchial cysts. He gave the views of the origin of these structures held by the leading pathologists of Europe, and clearly defined his own thoughts on the subject. He believed they usually only contain the products of degenerated epithelial cells, unlike the mucous and dermoid cysts. The treatment of these cysts by extirpation is really the only sure method, but is sometimes not possible, and in such instances the thick creamy fluid usually found within is to be drawn off, and an attempt made to set up an adhesive inflammation of the walls by means of the injection of irritating solutions, which often require repeating. The German surgeons do not seem to expect much favorable result from injections.

Dr. Hyde, of New York, made a few remarks highly complimentary to the research of the writer of the paper.

Dr. Byrd, of Illinois, thinks highly of electrolysis in treating these cystic growths.

Dr. Prewitt, of Missouri, said that Dr. Senn's views upon the origin of these cysts, although somewhat new to him, were undoubtedly correct.

Dr. Senn, in closing, said that he did not think electrolysis offered any hope in obliterating these cysts, and believed there was nothing equal to the radical operation of excision.

Several papers were read by title and referred to the Committee on Publication.

THURSDAY, MAY 8TH—THIRD DAY.

DR. CHARLES A. DALLES, of Pennsylvania, read a paper on

THE TREATMENT OF HYDROPHOBIA, HISTORICALLY AND PRACTICALLY CONSIDERED,

in the course of which he cited Aristotle, Pliny, Democritus, Dioscorides, Galen, and other ancients upon the subject. He showed that Celsus was well acquainted with the disease, and that some points of his treatment were not unlike those of the present day. The doctor enumerated various curious medicines used and recommended by older writers, giving the period when the so-called "mad stone" first came into use.

His time having expired, the reader was obliged to omit the latter part of the paper.

DR. C. D. PARKES, of Chicago, read an epitome of his address as Chairman of Section on Surgery, etc, his paper being based upon nearly one hundred experiments upon abdominal cavities of animals, the injuries being caused by gunshots. He thought the first thing surgeons should attend to in gunshot injuries of the abdominal cavity was hemorrhage, as clots so seldom form in the unopened abdomen after such traumatism. The next thing is the course of the bullet and the damage done by it. He spoke of the very uncertain track taken by a missile, illustrating this point by relating several experiments, and warned his hearers against deciding upon its course simply because the points of entrance and exit are plainly to be seen. He illustrated by diagrams the peculiar amount of damage done sometimes by a single bullet, one of them showing fourteen inches of intestine perforated in ten places by a twenty-two calibre ball.

The treatment he recommended was to cleanse the intestines or omentum, if extruded, with warm water, and return to the abdominal cavity as carefully as possible; extract the foreign body, if it can be done, bringing edges of cut peritoneum together and stitching them, and finally using continued suture to close outer wound. If resection of bowel must be performed, every endeavor should be made to save the mesenteric portion. His diagrams showed in a very plain manner the condition of the bowel after resection. He uses interrupted suture of No. 2 carbolized silk after resection, and explained at length his manner of introducing the suture, which was Lambert's suture, somewhat different from that commonly employed. He found in all his cases that extravasation of the contents of the bowel occurred. He laid down the rule that if no hemorrhage or sign of injury to the bowel occurs after perforating gunshot wounds, the points of entrance and exit will always heal quickly. He claims that in the present condition of operative surgery, many cases of severe gunshot injury of the abdomen should and will recover under proper treatment.

DR. QUIMBY, of New Jersey, asked the reader some questions concerning sutures of the bowels, thinking that a case of his own might have recovered if Dr. Parkes' method had been adopted.

DR. LANE, of Buffalo, mentioned some experiments of his own in abdominal resection. He believed that, should the cavity of the abdomen be more often opened after injury, more lives might be saved.

DR. DUNLAP, of Ohio, related his treatment of a case of severe intestinal traumatism, and criticised some statements made by Dr. Parkes.

DR. THOMPSON, of Washington, spoke of the German mode of suturing the bowel, they using a double row of stitches.

DR. CONNOR, of Ohio, spoke of the difference between operating in these cases in hospital service and in private practice.

DR. BYRD, of Illinois, reported a successful case in which he amputated a portion of a sphacelated intestine and omentum, and gave his method of operating.

DR. MURPHY, of Minnesota, moved a special vote of thanks to Dr. Parkes for his able and instructive paper, which was unanimously carried.

DR. T. F. PREWITT, of Missouri, read a paper on a case of

CHRONIC SEROUS SYNOVITIS OF THE KNEE WITH ENORMOUS COMMUNICATING POPLITEAL BURSA EXTENDING TO TENDO ACHILLES.

After reporting the case he made some practical remarks concerning cysts in this region. In such cases he recommends treatment by aspiration, counter-irritation by tincture of iodine, etc., compression and fixation of limb. He has no good opinion of the use of setons in this trouble, believing they are liable to excite too much inflammation.

DR. LEE, of Pennsylvania, spoke upon some points of diagnosis in such cases.

DR. E. H. BRADFORD, of Massachusetts, made a few remarks upon

TREATMENT OF OBSTINATE CASES OF CLUB-FOOT,

showing plaster casts of results of his special mode of treatment in this affection. He employs and recommends his special apparatus in very obstinate cases, after tenotomy has been performed; his instrument, consisting of steel plate, with three points of pressure applied, one over os calcis, one over head of astragalus, and one against metacarpal bones, is used, and he has obtained excellent results even in cases of extreme distortion.

The apparatus was exhibited and was examined with close attention by the members present.

DR. PREWITT, of Missouri, asked some questions concerning the length of each patient's sitting, and was answered by Dr. Bradford that he usually applied the instrument ten minutes at one time.

DR. QUIMBY, of New Jersey, thought that most bad cases of club-foot had distortion of bony tissues, and in such instances this apparatus could not bring the foot into proper shape without fracture.

DR. GILL, of Ohio, had found that perseverance in the use of pressure by adhesive straps, etc., would often bring about good results without tenotomy.

DR. LEE, of Philadelphia, believed that deformity was not usually bony, but confined to muscular and ligamentous tissues.

All the members present manifested their belief in the practical value of the apparatus shown.

DR. GEO. L. PORTER, of Connecticut, read a paper on

ENTRANCE OF AIR INTO THE VEINS A SECONDARY CAUSE OF DEATH,

and graphically described the condition and symptoms of a patient under such a complication. He said that although it probably had often occurred in former days, the condition was not accurately determined until 1818, and gave several post-mortems where air in veins had existed before death.

The Section then adjourned.

SECTION ON OBSTETRICS AND DISEASES OF WOMEN.

(By telegraph.)

TUESDAY, JUNE 6TH—FIRST DAY.

DR. T. A. REAMY, of Cincinnati, Chairman; DR. J. T. JELKES, of Hot Springs, Ark., Secretary.

The first paper was read by DR. R. S. SUTTON, entitled

DESPERATE SURGERY AMONG WOMEN,

the proper field for it, who should and who should not attempt it. Dr. Sutton dwelt upon the great responsibility which devolves upon those who attempt abdominal surgery, and the need there was of careful training and natural skill for those undertaking it.

SURGICAL OPERATIONS FOR CANCER OF THE UTERUS,

by Dr. W. H. Byford, of Chicago, was read by title.

Dr. Jos. Tabor Johnson, of Washington, D. C., read a paper on the effects of

TRACHELORRHAPHY,

showing the advantages and disadvantages of the operation.

Wednesday, June 7th—Second Day.

Dr. Theophilus Parvin, of Philadelphia, read a paper entitled

PUERPERAL SEPTICÆMIA,

in which he urged the necessity of cleanliness and judicious antisepsis as a preventive of the puerperal fevers.

Dr. A. Reeves Jackson, of Illinois, read a paper entitled a contribution to

THE RELATIONS OF OVULATION AND MENSTRUATION.

Dr. W. H. Taylor, of Ohio, read a paper entitled

THE MANAGEMENT OF PROTRACTED LABOR.

It was a paper of much physiological and pathological interest.

Dr. J. Herbert Claiborne, of Virginia, read a paper "On the Use of Chloroform in Labor."

Thursday, June 8th—Third Day.

The first paper was by Dr. I. E. Taylor, of New York, and was entitled,

ON THE MANAGEMENT AND RECTIFICATION IN DIFFICULT CASES OF OCCIPITO-POSTERIOR PRESENTATIONS.

The writer reviewed Naegele's views on the presentation of the child's head. He also gave the opinions of several early writers as to the frequency of occipito-posterior presentation and their methods of rotation. This change is brought about, he said, naturally by a rotating action of the uterus. How this took place has never been satisfactorily explained. When artificial aid is required, the hands or the lever must be used. The temporary use of the forceps may be of value. The histories of several cases were given.

Dr. Busey then read

A PAPER WRITTEN BY THE LATE DR. SAMUEL D. GROSS, ENTITLED CAUSES AND PREVENTION OF LACERATION OF THE FEMALE SEXUAL ORGANS.

The author apologized for attempting to discuss a subject belonging more to a special branch of medicine and surgery. He had, however, practised obstetrics specially during the early part of his life, and had translated and studied obstetrical works. Dr. Gross said that gynecologists were very ready to invent operations for lacerated parts, but rarely sought any way to prevent these accidents. Dr. Emmet had said that nearly every primipara suffered some laceration of the cervix. If this were so, then God ought to have made a gynecologist as a supplement to his creation of woman. Dr. Gross discussed the subject of the causes of lacerations. He spoke in the severest terms against the too frequent and maladroit use of the forceps. He urged very strongly the employment of venesection in order to relax the parts.

Dr. Robert Battey, of Georgia: Mr. Chairman, I would like to take a moment to put myself on record in confirmation, in part, of the views expressed by our late venerable and lamented ex-vice-president. Although a very much younger man than Dr. Gross, the summing up of my obstetrical experience has been—to put it in a few words, as I look back over it—in not a single instance have I reason to regret the use of my lancet in obstetrical practice. In many instances which I can now recall, I believe that positive good would have grown out of the more frequent use of it. I use it still when I have occasion to do obstetrical work.

Dr. H. F. Campbell, of Georgia: I am glad of the opportunity to discuss this paper. The principles it enunciates will, perhaps, not meet with the commendation of many of us, no matter how much we venerate the illustrious man who honored this Section with his last production. I am glad that I entertain views so entirely consonant with his. I am glad, too, that the gentleman who has just spoken, and who is from the same State as myself, agrees to a great extent, in the few remarks he made, with myself.

Blood-letting in labor, especially under certain circumstances, has, in my opinion, been most unjustly laid aside. Let us look back and see what has been given us in the place of blood-letting. Chloroform, chloral, bromide of potassium, and a variety of other remedies. The cause of convulsions is variously estimated. One will say that the cause is uræmia, another will say anæmia.

Now let us look at the matter naturally and logically. If anæmia of the brain is a cause of puerperal convulsions, why give those very remedies that produce exsanguination of the brain? In that case why give chloroform, why give bromide of potassium, or any other remedy that exsanguinates the brain? On the other hand, as to uræmia. Why does urea collect in the blood? Because of the congestion of the kidneys. If congested kidneys arrest the flow of urea and retain it in the blood, which thus results in convulsions, exsanguinate the kidneys, bring the kidneys down to a healthy point, eliminate the urea, that the blood may be free from it.

I have made some experiments in regard to the matter of bleeding producing convulsions. At one time it was claimed that convulsions arose from an irritation of the brain, now it is claimed that they result from anæmia of the brain. I took two birds and cut all the tissues that were in front of the cervical portion of the column. The birds bled, fell, and died without a kick. If anæmia of the brain could produce convulsions, certainly they must have resulted in this case. The birds were ordinary barn-door fowls.

Dr. Harvey, of Indiana: Mr. Chairman, I would like to say a few words in regard to the paper of Dr. Gross. While no one excels me in respect and honor for the author of that paper, I take it now that the subject-matter is to be treated as freely as though the author was here among us, and especially do I deem it right and proper that we should discuss his paper when such doctrines and teachings have been given to us this afternoon.

It is a matter of necessity, it seems to me, that the proceedings should lead to an expression upon the other side of the proposition, because I know that such an expression and feeling exist. We are certainly not going to turn back in this stage of the world and begin to again bleed our patients, while I admit the necessity for the use of the lancet occasionally, in certain well-selected cases. And I want to say that although I am a young man, I entered the medical profession in the days of blood-letting and followed the teachings of Dewes and White. I have seen good immediate results in labor from the use of the lancet, yet I have seen better results from the use of chloroform and opium, both in convulsions, and in relaxation and prevention of laceration, and the accidents spoken of in the paper. I think that we ought to feel grateful toward our lamented friend for considering the subject, and bringing it before us as has been done; but I am certain that by the remedies now in use the accidents would be prevented much better than by means of blood-letting. Although the latter occasionally acts in a beneficial way, it certainly does harm to the patient in the long run.

Mr. Kinloch, of South Carolina: My friend who has just preceded me has somewhat anticipated the few remarks which I proposed to make. My whole impression

from the reading of this paper (as much as I love and venerate its author) is that we have here a paper representing simply the force of early impressions. It shows us how tenacious those impressions are. We must not forget that the opinions of great men have their powers for evil as well as for good. I disagree entirely with the sentiments expressed in that paper as to the surgical use of bloodletting. I have practised medicine for thirty-five years as a general practitioner, and have had my fair share of obstetrical practice, and I have never yet bled a woman in labor. I am glad to say, without any boasting, that I have never lost but two women from diseases consequent or connected with the parturient state.

I wonder if our illustrious deceased friend, if he were here, would apply the same rule to surgery that he would apply to obstetrics. If the rule is not applicable to surgery I contend it is not applicable to gynecology and obstetrics. If it is not necessary to bleed a man to cause a relaxation of the shoulder or of the femur, it is not necessary to bleed a woman to relax the sphincter muscles. It is *post hoc* and not *propter hoc*. Many of us have seen the sphincter muscles relaxed by giving the patient chloroform or opium and waiting for a few minutes, half an hour, or more. If the same patient had been bled, it would have been affirmed that bloodletting had relieved him.

My distinguished friend in his paper said something to the effect that an eminent gynecologist should have been created at the same time with women, in order to repair lacerations of the cervix. I would suggest that if this theory is to be adopted, it might be better if every woman were born with a lancet around her neck to meet the difficulty of which Dr. Gross treats.

Dr. Seymour, of New York: From the expressions we have heard, it seems to me that there must be differences in the disease in the localities in which the speakers practise. Certainly it is the experience of the older men in the section in which I live, men who used to operate with the lancet years ago, that the disease at the present time cannot stand it. The Vienna school has shown that these cases can be successfully treated without bleeding. I know of no school where they have so many puerperal women as they have there, or where anything like their statistics can be shown. I think, as shown in the *Obstetrical Journal* recently, that neither bleeding nor forced accouchement are necessary for that purpose.

Dr. Smith, of Washington: An old friend sitting by my side remarked a little while ago, "Dr. Gross' paper takes rank with Washington's farewell address." I make this statement to show you that the old doctors still believe in bleeding, although the young ones do not believe in it quite so much.

Dr. Claiborne: I suspect in this case that the truth lies as it ordinarily lies, in the middle. There are some patients who should be bled, and some who should not. While I stood here yesterday, the advocate of chloroform, as I believe by the use of chloroform we can in a great many instances set aside venesection, yet I should be very sorry to throw the lancet utterly away. I am neither an old man nor a young man; I am in the middle, and therefore I claim to be nearer the truth than either. I have been engaged in the practice of medicine about thirty-two years, and most of the time in obstetrical practice in a city where I have had an opportunity of seeing a great many cases of obstetrics.

It is especially fitting, and I feel that I should say a word to-day in memory of the venerable gentleman who has left with us his last address. The last time I had the honor to appear before this Association, in discussing the subject of bloodletting, on which I took the affirmative side in certain diseases, a doubt was expressed by some member as to whether a lancet could be found among the whole body of gentlemen. I put my hand in my pocket and pulled out one which I had used for twenty years (not the same lancet, of course). That brought the house down. Dr. Gross arose and very handsomely complimented and sustained me. I think, therefore, sir, in memory of that occasion that I should say this one word: That the truth lies as near with him as it does with us.

Dr. Reamy, of Ohio: As the time has nearly expired, and I find no one else on the floor, I will take this as the last opportunity I shall have to say a word during the session, to express two or three thoughts that have occurred to me. I think with my friend on the left (Dr. Harvey), that since this is a contribution to this department, and is the teaching of this great man offered to us, in spite of our veneration for his kindliness of heart and his greatness of mind, his wonderful industry and his almost marvellous work in his profession—while we all subscribe to this and feel this, and together mourn his death, even in the ripeness of his years—still, when he offers us this paper, it stands upon the same ground that it would stand upon if he were living. It is to be published, and therefore I, with my friend on the left, could not let the sentiments uttered in this paper, though from so distinguished a source, go upon the record unchallenged.

Perhaps enough has been said with reference to the fallacy taught as to bleeding, but still there is a little point in the matter which has not been brought out. Summing up in this paper, the distinguished author states that he would bleed in threatened abortion. No distinction is drawn here as to what kind of a threat, as to what the causes leading to the threatened abortion might be; simply if the woman was threatened with an abortion he would bleed her.

I need not qualify the ridiculousness (if I may use such a phrase) with reference to that position. Granting that bloodletting could do no possible harm ultimately, granting everything for it that is claimed, it is a proposition which need not be contradicted—it contradicts itself. He would also bleed in case of fever. If a pregnant woman had fever he would bleed her. He does not even make the distinction that the judicious obstetrician or general practitioner in charge of that woman may recognize the fever from which she suffers as the result of poison in her system before she is delivered. Why would he bleed such a woman as this? why would he lessen her vital power and take from her the blood which physiologically as well as scripturally is her life, in order that she may be the better prepared to fight with the poisonous germs in her system and resist their progress? Why bleed her to-day, in order that to-morrow, or next day, with these germs in her system, she may enter upon the throes of labor minus the amount of life the lancet has taken from her—bleed her simply because she has a fever? Rather husband every particle of strength that she has, knowing that it will be required to resist the influences with which she has to contend. He would bleed in a case of rigid os, he would bleed in a case of nagging fever.

I will not dwell upon this. An obstetrician in modern times, who has not been taught that the lancet is the grand remedy for all the ills that the parturient woman can enter upon, under circumstances of this kind, if she had nagging pains, would give her chloroform or something similar, let her go to sleep for three or four hours, and then return and deliver her in a short time; or, if her pulse is too high, give her a sedative. He would bleed in every case of puerperal convulsions, perhaps. While all cases are not alike, and while there is no gentleman present who would not bleed in some cases, yet I am very far from agreeing with the views expressed in this paper. In a certain proportion of these cases bleeding is perhaps the best remedy. There may be doubts about it. At the same time it includes but few of the cases in which any man who has the hypodermic injection of morphine, and has seen a woman go into a tranquil sleep who was a few moments before in peril from convulsions, would wish for other treatment.

Just one word with reference to the forceps and I am done. The distinguished author ought to have sent to this Section a picture of the forceps that were used at

the time of which he speaks. He must remember that the instruments used in those earlier days, and used so unfortunately, were a very little improvement upon the pattern used by Chamberlain himself; he must remember that it is only a few years ago that obstetricians in some of the largest cities used an instrument long enough for a cart-hook. That is not the kind of forceps described yesterday by my distinguished friend upon the left, which he recommends and thinks so admirable in certain cases—a delicate instrument. Forceps are not now what they were; but what I want to say is this: Dr. Gross states that teachers of obstetrics have a fearful responsibility upon them for sending out obstetricians incompetent to use the forceps discriminately, and who do with those instruments so much damage. Without doubt the use of this instrument simply for the purpose of saving time is wrong. It is criminal to use the forceps so as to get to a good supper. There can be no doubt about that; but even the gentleman on my right, who has become more conservative, as he states, knows that that charge is not sustained.

The students who go forth now and are taught in this department are more competent to use this instrument after two years' practice, are better instructed in its use, more thoroughly comprehend the principles, than the average practitioner of twenty years knew in those days. I do not refer to any single student or to any single college. I say the students that go out from the average medical college to day.

There is no question about it. The books which have been written in the last few years in discussing this subject make it very plain. It is a different proposition from what it was. Consequently I think these charges are entirely out of place. The obstetrical forceps is not the weapon of ruin that it is pictured here in this admirable paper to-day. It is not used indiscriminately by bungling men to tear the uterus as has been described. I must, therefore, enter my protest against this particular part of the paper.

First, I do not believe that the obstetrical forceps is used by the average practitioner, as stated by the distinguished gentleman, in great centres once in seven times. The general practitioner, the average accoucheur in city, country, and village in this country does not use the obstetrical forceps on an average once in seven or five labors. I speak from observation and from facts I have obtained from extensive correspondence on this subject during the last two or three years.

They are not in the habit of doing it. They do not use it on an average more than once in from fifteen to twenty-five cases. The distinguished author is therefore simply laboring under a mistake. He is in error and the error ought to be corrected.

Dr. Wathen, of Kentucky: If the brain is in an anæmic condition, certainly such remedies as chloral and chloroform would be far less injurious than blood-letting; in this case the brain would be depleted more by blood-letting than by the chloroform. I have never seen a case in my experience with labor, where the patient suffered with fever or with threatened abortion, where I could possibly conceive that blood-letting would be of any benefit. Blood-letting is certainly of benefit in cases of puerperal fever, where there is an excessive volume of blood, though there may be a depreciation of its quality, at the beginning of the convulsions, before other remedies could possibly act. The amount of blood that is taken away may prevent injury to the brain that would prove fatal. That would only be a means to prevent the injury until other means could act.

In regard to the remark in Dr. Gross' paper, that the abstraction of blood left the system in a better condition for the puerperal woman, that is certainly not in keeping with the view of other practitioners of medicine in this day. With the blood of a poorer quality than it is at other times, physiologically, and with a woman who after she is confined is constantly losing blood, for a week or two or three weeks; a woman that wants everything that she can possibly get to enable her to go through with the puerperal condition properly; a woman who cannot take a very great quantity of good nourishing food for making blood; a woman who is to go through the process of involution; a woman who must furnish milk to the child—to say that this woman is in a better condition after having been bled profusely, as suggested, than one who has not been bled, is to my mind so absurd that I am sure the profession of the country will never adopt a theory so pernicious.

Dr. W. M. Findley, of Pennsylvania, read a paper entitled

A THOUSAND CASES OF LABOR IN PRIVATE PRACTICE, AND THE DEDUCTIONS TO BE MADE FROM THE SAME.

Dr. Wm. T. Lusk, of New York, read a paper on

SUDDEN DEATH IN LABOR AND CHILDBED.

The writer reported an illustrative case, and referred to the meagre literature of this subject. He then discussed the possible causes: First, the entrance of air into the uterine veins. The aspiration force of the vagina is greatest in the knee-chest, latero-prone, and lithotomy positions. The use of the vaginal douche is not free from danger, and its use had been forbidden in the public institutions under his charge. A second cause is that of thrombosis and embolism. Ordinarily, however, death from these causes is not instantaneous. Dr. Lusk doubted if suddenly formed cardiac thrombi ever occurred—at any rate, such a cause of death was not positively demonstrated. In some cases, like that reported by the author, there is no entrance of air or embolism. Dr. Lusk was inclined to attribute the cause in these cases to shock. He thought that the pathology in childbed cases was just the same as that elsewhere.

Dr. Brown, of Baltimore, read a paper entitled

MALFORMATIONS OF THE FEMALE SEXUAL ORGANS.

A sketch of the development of the uterus was given, and some cases of sexual malformation were reported. In one case the uterus and ovaries were absent, and the vagina was present. In a second case there was an infantile uterus with amenorrhœa. The condition was relieved by faradization. Cases of anteflexion as the result of defective development were related.

SECTION IN DISEASES OF CHILDREN.

(By telegraph.)

TUESDAY, MAY 6TH—FIRST DAY.

Dr. Wm. Lee, of Baltimore, Chairman; Dr. Geo. N. Acker, Secretary.

The first paper, on

THE SIGNIFICANCE OF BLOODY DISCHARGES FROM THE BOWELS IN CHILDREN,

was read by Dr. Frank Woodbury, of Philadelphia. The occurrence of blood in the alvine dejections of a young child, whether existing in small amount or large enough to constitute actual hemorrhage is a symptom that excites alarm. This accident in childhood is generally regarded as of more serious import than in adults. Systematic writers on diseases of children make no reference to intestinal hemorrhage in children, or speak of it only incidentally. Like hæmatemesis, bleeding from the intestines is merely symptomatic. The term melæna was anciently used to indicate black discharges from the stomach or bowels, or both. This may be due to medicinal substances, as bismuth, as well as to the action of the intestinal fluids upon effused blood. Blood may appear in the discharges from a lesion in the stomach, œsophagus, or upper air-passages, or even from without the body, being taken with the food, as a baby from nursing a bleeding nipple. The present consideration of the subject will be limited to bleeding from sources be-

low the pylorus. The first question asked by the clinician is as to the site of the hemorrhage, the second is, what is its cause? Vascular piles were found by Allingham to be a cause in a boy three years old, who had bloody discharges from the rectum. Sedgwick calls attention to the existence of piles at an early age. Fissure of the rectum is given as a cause of a bloody discharge in a boy four and a half years of age. Prolapse of the rectum is less frequently accompanied by hemorrhage in children than adults. The descent of the bowel is a secondary condition caused by weakness of the sphincter from a prolonged diarrhœa. Polypus of the rectum is more frequent in children than is generally supposed, and is usually accompanied by bleeding. Bryant says that in children this is the principal cause of hemorrhage from the rectum. These polypi may be mistaken for hemorrhoids, but the treatment is much the same. It is rarely necessary to apply the ligature in children. The usual site of the polypi is inside the internal sphincter, from two to six inches within the bowel. The pedicles may be several inches in length. Foreign bodies may cause ulceration and hemorrhage, such as pieces of bone, glass, etc., swallowed by the children; for substances may be introduced from without. Dysentery and entero-colitis, if of sufficient severity, will cause small quantities of blood to appear during the height of the inflammation. If ulcerations have occurred, large quantities will appear. Masses of worms may cause enough iritation to produce some bleeding. Intussusception of the bowel is accompanied by the passage of blood. A discussion of the treatment of intussusception was next given. Ulceration of the small intestines may be due to sloughing of necrosed follicles in simple catarrhal inflammation, or it may be tubercular in origin. Such a hemorrhage may simulate that from typhoid fever. Some of the causes of the hemorrhage are less localized. Thus congestion of the mucous membrane is quite common in young infants with inflammation. This congestion may be secondary to diseases of the other viscera, as the spleen or liver. In some cases of bleeding the pathological condition is not well understood. Melæna neonatorum was here referred to. In some cases purpura hemorrhagica is a cause of the bleeding. Blood sometimes appears in the discharges during the specific fevers. Attention has recently been directed to cases of visceral rheumatism in the adult. The doctor met a case last year in which a boy, eight years of age, during an attack of acute articular rheumatism, was seized with obstinate constipation and a discharge of blood from the bowel.

Dr. J. Lewis Smith stated that in this affection the pathological conditions were very different. Intussusception was a most important cause of a bloody discharge, unmixed with mucus, and it is vitally important that an early diagnosis be made. It occurs chiefly at the ileocæcal valve, causing the most intense passive congestion with oozing of blood. The intussusception may be in the large intestine alone. There is a little fecal matter passed, followed by dark-red blood. Tenesmus generally exists, which resembles dysentery, but no mucus is usually present. Purpura hemorrhagica is the next common cause, and the changes are apparently in the capillary walls and not in the blood, as well-nourished children are often affected. He had never seen hemorrhage from worms.

Dr. Fay had frequently seen blood in gastro-intestinal catarrh.

Dr. Adams thought that sufficient attention had not been given to the symptoms following the cessation of the hemorrhage; stimulants should then be freely given.

In closing, Dr. Woodbury thought a digital examination should always be made.

The next paper was on

CONGENITAL ENCEPHALOCELE,

by Dr. John H. Duncan, of Kansas City. This affection is comparatively infrequent. He recently had a gratifying result in the treatment of a case. A review of the history of congenital encephalocele was next given. There are two varieties: 1, congenital; 2, traumatic. The former only was considered by the writer. The real cause is in the cranial cavity; the integument is usually perfect. The tumor usually occurs in the occipital region, or at the anterior fontanelle. Pressure on it causes cerebral symptoms. At present the tendency in treatment is to leave them to nature, while the older surgeons used the knife or ligature. The author prefers leaving the tumor alone if possible, if not, to use the ligature.

A case was then cited: Willis M——, born August, 1882, was brought to the doctor at the age of seven weeks. He had a tumor about three-fourths of an inch in diameter, situated at the anterior fontanelle, which was covered by skin, and pulsated synchronously with the heart. He was born after a very tedious labor, lasting twenty-four hours. His mother then noticed a very small swelling, which slowly enlarged. It continued very slowly to enlarge, until in December it rapidly increased in size, in two days attaining the size of an orange. Brain-tissue was now plainly to be detected in the tumor. The doctor attributed the sudden increase of the tumor to severe fits of crying, caused by the absence of the mother from her child. There was much nausea present. The tumor was ligated, and almost immediately the nausea ceased. It was necessary to apply several ligatures, but the case was finally cured.

Dr. J. Lewis Smith asked if the internal part of the tumor had been examined.

Dr. Duncan replied that brain-tissue had been found in it.

Dr. J. Lewis Smith could not recall any case successfully treated.

Dr. Woodbury thought the case interesting from its resemblance to a malignant growth.

Dr. Duncan at the start was in doubt as to the diagnosis, but later on its extremely rapid growth had made its nature clear to him.

Dr. Latimer found it difficult to realize how so much cerebral matter could be removed without nervous symptoms, and suggested that most of the tumor may have consisted of blood with only a little brain-tissue superadded.

Dr. Duncan replied that cases had been recorded in which much brain-tissue had been lost without marked symptoms.

The next paper was

DIPHTHERIA BASED UPON ANALYSIS OF 120 CASES, WITH A MORTALITY OF 7.

by Dr. J. W. Brown, of New York.

He did not wish to discuss the symptoms, diagnosis, etc., of diphtheria, but how to lower the mortality. His cases extended over a period of fourteen months, and occurred in a country of wells and old-fashioned backhouses. The invasion was generally sudden, and in a few hours the fauces would be covered by a membrane. It was quite contagious and the doctor contracted it twice. In the seven fatal cases, three died from the disease and four from complications. The average age was under sixteen years. The doctor regarded the disease as constitutional with a local lesion. The latter part must not be overlooked in treatment. He began treating his cases with calomel, five grains every three hours until the bowels freely moved. Salt pork was applied externally to the neck. He did not swab the throat but gently touched it with a solution of the persulphate of iron, ʒ j., to ℥ ss. of vinegar and glycerine. He never forcibly tore off the membrane. In the atomizer he used persulphate of iron, gr. x., to ℥ ss. of vinegar and glycerine. The spray should be thoroughly used. As a constitutional remedy he used a mixture containing tinct. ferri mur. and potas. chlorat. He also gave quin.

sulph. and potas. chlorat., of each gr. iij. every four hours. Do not allow the patients to swallow the membrane, as it produces symptoms resembling arsenic poisoning. Give stimulants from the first and let in plenty of fresh air. He frequently purified the air by burning sulphur. He did not believe in tracheotomy or lime-water. The cases had not been selected.

Dr. Samuel Smith said that follicular tonsillitis and pharyngitis often resembled diphtheria. He formerly believed the disease to be primarily constitutional, but after noticing very many cases in which vigorous local treatment conducted from the first seemed to check the advance of the disease, he had changed his mind. He gave no quinine, stimulants, nor beef-tea, but milk diet, tinct. ferri chlorid., and thorough local treatment.

Dr. A. Behrend noticed that when diphtheria began with hoarseness, nearly all the patients died.

Dr. Franklin had seen many cases in Ohio and used iron and quinine with gargles. He thought there was an element of rheumatism in many cases of diphtheria, and guiacum was here indicated. He does not lose five per cent. of his cases under this treatment.

Dr. J. Lewis Smith regarded the disease as primarily constitutional, or at any rate it became so almost immediately.

Dr. Busey, of Washington, recognized three forms of diphtheria, the simple, the more severe, but in which treatment is availing, and the malignant.

Wednesday, May 7th—Second Day.

It was moved and carried to continue yesterday's discussion on diphtheria.

Dr. J. Lewis Smith uses alcohol in large doses without any symptoms of intoxication. Although he uses iron and quinine he regards alcohol as the most important. He regards with distrust the so-called antiseptic method that uses germicides. The micrococci are as tenacious of life as the white blood-corpuscles. Some leading New York physicians are now looking with favor on the bichloride of mercury used in small doses, and he intends giving it a fair trial. Dr. Smith regards with suspicion statistics on diphtheria, as, like scarlatina, the type varies so much in different localities and years, although, considering the disease as constitutional, local treatment is very important to prevent septic absorption. When the nasal cavity is affected he uses a solution of ordinary salt and boric acid, a teaspoonful being injected every two hours.

Dr. Burroughs feared that injections might cause otitis media. He uses sulphur by insufflation with good results.

Dr. Free, of Pennsylvania asked whether the chlorate of potash was not injurious in large doses. He has had two cases in which children with diphtheria got up fatal nephritis, caused probably by the continuous use of large quantities of chlorate of potash. In the district where he practised physicians considered they did well if they saved eighty per cent. of their cases. He uses alcohol in large doses from the first, and insists on cleanliness being strictly observed. He uses a solution of lime-water and carbolic acid freely applied to the nose and throat by the hand atomizer. He omits quinine, as it disturbs the stomach, and he does not consider it a very powerful disinfectant. In his county there never has been a recovery from laryngeal diphtheria, and one peculiarity about the attacks of diphtheria is that in nearly all cases they are followed by paralysis. He gives rye whiskey, ℥ ss. to ℥ j., every two hours as long as the symptoms demand these large doses.

Dr. Hicks, of Virginia, looked upon laryngeal diphtheria as almost necessarily fatal. He had never seen but one case recover. He could not see how a catarrhal inflammation could ever degenerate into a diphtheritic. He also asked why physicians so universally use the chlorate of potash and tincture ferri muriatic mixture, as he had never derived any particular benefit from the combination. He regarded chlorate of potash as objectionable from its action on the kidneys. He had come to the conclusion that in laryngeal diphtheria we can do nothing, and that simple cases often get well if left to themselves. He thought the important question to find out is, how the disease would behave if allowed to run its own course. Physicians practising in hospitals had better opportunities to test this question than country practitioners. Pneumonia was formerly treated most vigorously and not left much to itself; now the mortality is less without so much medication. His plan of treatment consisted of much nourishment and the use of antiseptics. He found a weak solution of the hydrate of chloral to be a good antiseptic gargle.

Dr. Holton, of Vermont, firmly believed in the contagiousness of diphtheria. A country physician can often follow out the contagiousness of a disease better than one practising in the city. He formerly believed the disease to be constitutional, but he now regards it as local, and hence he would emphasize the importance of local treatment. In a former epidemic in his county, among 113 cases there were 13 deaths, and of the latter, 2 were untreated, through the prejudice of parents, and 9 were under the care of homœopathic physicians, he therefore believed that good treatment was of great avail in this disease. He does not give quinine, on account of stomach irritation, but uses stimulants. A chlorine mixture is likewise employed.

Dr. Hicks thought there were circumstances in which diphtheria was contagious and others in which it was not. There must be favorable conditions for its development.

Dr. Park, of Pennsylvania, said that he practised in the coal regions, where he has lately had a number of cases of diphtheria. He considered the disease more local than constitutional. He had not seen many cases die except from laryngitis. He used a gargle of crystallized carbolic acid, tannic acid, and glycerine, and did not regard the disease as very contagious.

Dr. William Lee regarded the statistics presented in Dr. Brown's paper as marvellous and questioned the correctness of his diagnoses. There is no disease so difficult to diagnose as diphtheria. He quoted Henoch as saying that he never made a positive diagnosis on his first visit. Catarrhal angina often simulates diphtheria. If the membrane can be removed without bleeding it is not diphtheria. In all the cases he has seen the membrane extended up back of the uvula. He believes the disease to be general from poisoning by micrococci. He gives alcohol freely and resorcin internally, and locally a powder of resorcin and sulphur, which can be placed upon the child's tongue, and is readily swallowed. He regards mopping the throat in young children as highly dangerous, and likewise efforts to detach the membrane. He always considers diphtheria as contagious, and most cases he has treated began as a simple catarrhal angina.

Dr. Busey thought the diphtheritic poison was very apt to be ingrafted upon a simple catarrhal inflammation.

Dr. S. Smith cited two cases that seemed to him to prove that diphtheria is primarily local. If he could not wash off the membrane without pain, it was probably diphtheritic. He uses a wash of borate of soda, which destroys bacteria.

Dr. Brown, in closing the discussion, said that the object of his paper was to show the benefit of the persulphate of iron in his cases. He thinks the vinegar assisted in dissolving the membrane, but the good hygienic surroundings of the country may have assisted him in obtaining such good results. The temperature curve was valueless as a diagnostic point in his cases. He had no experience with the bichloride of mercury.

Dr. M. P. Hatfield next read a paper on

Septic Jaundice in Childhood.

This affection is very rare and is a symptom of a dis-

eased process. It is a condition that should have careful study. The liver acts as a general depurating agent of the body, and hence its functions are very important. If this organ acted well we might not have malarial trouble, septicæmia, etc.

Jaundice is sometimes considered hæmatogenous, but the writer thought this was not common, and particularly that it did not occur in infants. A case was here cited. Willie M——, aged four years, was taken suddenly with vomiting and a high fever; temperature 104°. Soon the rash of scarlatina developed. The disease was complicated by entero-colitis, which was relieved by treatment. The throat was extremely inflamed, exhaling a very offensive odor. On the next day, the third of the disease, the temperature went up and jaundice appeared. The fever reached 105°. The child was weak and very drowsy. On the seventh day the jaundice was intense, all the secretions being stained, even the ear-wax and nasal mucus. The child was speechless and the discharges passed involuntarily. The acid pack was used. Although the child was very low he slowly recovered, and in one month the boy was discharged cured. No authors mention jaundice as a complication of scarlatina. The writer considers the jaundice in this case as due to septic influences. He can find nothing in literature resembling this case.

Dr. William Lee stated that he has had three cases of septic jaundice in children, all of whom died. He confessed the subject was a very obscure one. His three cases died within a week of birth, and their mothers were all in delicate health.

Dr. Hatfield asked if there was umbilical inflammation in Dr. Lee's cases. Dr. Lee replied that none had been detected.

Thursday, May 8th—Third Day.

The first paper, on

THE FEEDING OF SCHOOL-CHILDREN,

by Dr. Louis Atlee, was in his absence read by Dr. Woodbury.

The greatness of a State depends on the vigor of the people. The physicians are partially responsible for the health and strength of the people. We see too many pale, thin children, showing imperfect nourishment. Too often a light breakfast is taken and then the brain is exercised all day. Lunch consists of cake or fruit, and the foundation is thus laid for future disease.

CHILDREN ARE NOT SO MUCH OVER-EDUCATED AS UNDER-FED.

The brain is kept stimulated by intellectual work while the rest of the system suffers. This is a matter of great moment, and the object of the paper is to attract attention to the subject.

Dr. Burge, of New York, thought some children were over-fed, and that the paper was too general to be of practical importance.

Dr. Woodbury thought the great trouble was from *injudicious* feeding. Each age must have its appropriate food, and the rich often suffer as much as the poor in this respect.

Dr. Lee had often noticed, when a School Commissioner, that children of the richer classes often brought a less substantial lunch than the poorer people. The trouble was not from excessive study, but from inferior food.

The next paper was on

ENLARGED TONSILS, AND HOW THEY SHOULD BE TREATED,

by Dr. Dudley S. Reynolds, of Kentucky.

Enlarged tonsils nearly always coexist with chronic thickening of the nose and pharynx, and constitute a great source of anxiety. The tonsils are lymphatic glands, and their enlargement has the same significance as that occurring in other lymphatic glands of the body.

It is a part of a general lymphatic obstruction due to a state of perverted nutrition. We must not attack one lymphatic gland that is engorged with lymph. There is nothing to show that enlarged tonsils are due to inherited struma. Often children are taken to specialists, who cut or burn the tonsils, entirely ignoring constitutional treatment. In 9,012 persons he had examined with naso-pharyngeal trouble, 8,062 had enlarged tonsils, and in 8,654 of the cases the patients lived largely on food containing artificially produced glucose that does not nourish well. In his region maple sugar and syrup were largely taken, and he found them to aggravate any engorgement of the lymphatic tracts. If oils, fats, and animal food were taken more by children, instead of so much sweets and cooked fruits, which depreciate the system, enlarged tonsils would not be so frequent. Starvation is found to produce lymphatic engorgement. Many disasters, as impairment of voice, etc., follow cutting. Local treatment alone never can cure, but a combination of local and constitutional measures gives relief. Often it is only possible to produce an amelioration of symptoms. Frequent bathing, milk and animal food, and plenty of out-door exercise were recommended.

Dr. Chancellor, of Virginia, had seen in some cases a decided hereditary tendency to enlargement of tonsils. He did not believe in instrumental interference. Treatment should be constitutional.

Dr. Reed, of Ohio, thought that general treatment was not sufficient to overcome enlargement, which predisposes to other throat diseases. Cutting might save years of trouble. Diphtheria tends to attack enlarged tonsils.

Dr. Daly, of Pennsylvania, said the best treatment was abscission of the tonsils. He can give assurance of relief if this operation is properly done. We must make as good a stump of a tonsil as we would of an arm or leg. If there is any ragged tissue trim it off, and if granulations afterward appear they must be snipped off. In two or three months after thus operating an expert cannot generally tell that an hypertrophy has existed. He never uses chloroform or ether.

Dr. Jones, of Illinois, thought that tonsils were often unnecessarily removed.

Dr. Jewett, of New York, does not remove tonsils now so frequently as formerly. He only removes them when exceedingly large, as he has noticed that in girls at sixteen years and men at twenty-five years they generally grow smaller. He has never had success with topical treatment.

Dr. Reynolds, in closing, said that generally there was no reasonable ground for tonsillotomy. Enlarged tonsils are not necessarily inflamed. Partial cutting, of course, will not produce the same disasters as complete excision.

The next paper was on

INCONTINENCE OF URINE IN CHILDREN,

by Dr. Samuel S. Adams, of the District of Columbia. He has examined all the literature of the subject, including articles in German, French, Italian, and Spanish, from the year 1784 to the present date. In 1784 Mitchel wrote as clearly on the disease as any subsequent author, and its pathology was as well understood then as now. From birth the child instinctively voids its urine, as the act is reflex. About the eighteenth month the child begins to exercise complete control over the sphincter, after this time incontinence is attributed more to carelessness than to a pathological condition. This he considers a great injustice, particularly as children are often punished. All of his cases have had a specific cause. There are three varieties of incontinence. 1. Where there is a constant dribbling, this is not frequent. Two such cases he had seen were due to vesical calculi.

2. Intermittent incontinence, often met with in girls. They lose control of the sphincter before getting to the closet. 3. Nocturnal incontinence. The same causes that produce seminal emissions in adults bring on this condition in children. Enuresis is often superseded by seminal emissions, and the same remedies often relieve both conditions. It is a conservative process following undue irritation, occurs most frequently between eight and twelve years. Cases were then cited in which the causes were phimosis, calculi, ascarides in the rectum and vagina, hip disease, and amorous dreams. He does not approve of chloral for children. In exalted nervous conditions the bromides are to be given, belladonna is the best to allay irritability and relax spasm. Circumcision is often necessary.

Dr. Reed mentioned a set of cases in which the incontinence was due to a want of tonicity of the bladder with partial retention of urine. Here strychnine is of benefit.

The last paper of the Section was,

PRACTICAL SUGGESTIONS ON THE TREATMENT OF THE MALIGNANT FORMS OF SCARLET FEVER,

by Dr. Bedford Brown, of Virginia. The marked features of malignancy were very high temperature, extensive prostration, defective renal action, a greatly weakened heart, feeble pulse, frequent vomiting, and a total suspension of the digestive functions. Can the type be modified by treatment? His plan of treatment was sedative and eliminative. The action of the skin and kidneys must be freely kept up to eliminate the poison while the system must be energetically supported.

SECTION ON OPHTHALMOLOGY, ETC.

(By telegraph.)

Tuesday, May 6th—First Day

Dr. Chisholm, Chairman; Dr. Seiler, Secretary.

Dr. P. D. Keyser, of Philadelphia, reported two interesting cases of

NEOPLASMS OF LACHRYMAL GLANDS

in adults, both sarcomatous. One returned twice after operation. The gland was extirpated and recovery finally took place in both cases.

Dr. Williams, of Indianapolis, said ptosis was common after extirpation of the larchrymal gland.

Dr. Chisholm had had four or five cases of a malignant character, in two great deformity. One case of sixteen years' standing was calcareous degeneration.

In reply to a question of Dr. Keyser's, he said the growth was not cystic.

Dr. Burnett, of Washington, believed all cases were adenomata originally.

Dr. Thompson, of Indiana, reported a case of large cyst removed from the eyeball and lachrymal gland. The patient returned in eight weeks. Microscopic examination showed it to be scirrhous. A second operation was permanently successful.

Dr. Seiler described the case as an inter-canalicular fibroma.

DIAGNOSIS IN OPHTHALMOLOGY

was the title of a paper read by Dr. Williams, calling attention to the necessity for careful discrimination between cases and the importance of early diagnosis. He called especial attention to strabismus.

Dr. Keyser excised a portion of a paralyzed internal rectus muscle in one eye with success, and straightened the eye.

Dr. Chisholm also reported cases of paralysis where muscles had been cut with good result.

Dr. Risley read a paper on

SYMPATHETIC NEURORETINITIS,

Dr. G. T. Stevens said that sympathetic irritations may show themselves elsewhere, and related the history of a case in which irritation was located in the brain.

Dr. Fulton reported a case of sympathetic irritation caused by iridectomy.

Dr. McKay reported successful results from cases treated by atropia and mercurial ointment.

Dr. Jackson reported a similar case. After enucleation—dark room, atropine, mercurials.

Dr. Little reported a case of retinitis from secondary injury. It got well without enucleation,

Dr. Burnett said many cases escape detection on account of opacity of vitreous being associated.

Dr. Thompson said that the affection was most frequent in the ciliary region.

Wednesday, May 7th—Second Day.

Dr. H. H. Hart, of Ohio, read a paper on the

METHOD OF TREATING CHRONIC OTITIS MEDIA,

and reported a few cases.

"Irregular Astigmatism," by Dr. G. D. Theobald, was read by title.

INFLUENCE OF CLIMATE ON TREATMENT OF CHRONIC CATARRH OF MIDDLE EAR,

by Dr. J. F. Fulton. He recommended a cold, dry climate for non-suppurative cases, but suppurative needs a warm climate—the peculiar characters of the climate of Minnesota offering special benefit.

Dr. Seiler said that hypertrophic catarrh was benefited by high altitude and dry climate, and atrophic by moist.

Drs. Williams and Turnbull also spoke of the advantage of change of climate.

Dr. Fulton, in concluding, said some cases got well without local treatment by climate alone, others require local application.

Dr. D. W. Rankin, of Allegheny, read a paper on

EPISTAXIS,

recommending ergot and astringent washes.

Dr. Brown spoke of cases with hemorrhagic diathesis relieved by ergot. Extract of hamamelis was also very useful.

Dr. Daly, of Pittsburgh, advocated plugging the nostrils with cotton.

Dr. Jeddy, of Illinois, reported a case requiring transfusion.

Dr. Murrall, of Iowa, had seen cases relieved by quinia. Malaria was a common cause of epistaxis.

Dr. Hart recommended a tourniquet applied to the thigh.

A COMBINED VISUAL AND ASTIGMATIC TEST

was exhibited by Dr. Little, of Philadelphia.

DISEASES OF THE EAR IN LOCOMOTIVE ENGINEERS

was the title of a paper presented by Dr. Turnbull, who offered resolutions bearing thereon, which were not adopted.

Report on

CAUSES OF BLINDNESS,

by Dr. Hobby, of Iowa, based upon statistics of the College of the Blind of Iowa.

Dr. Reynolds said that fifty per cent. of cases were due to purulent ophthalmia.

Dr. Hobby, in reply to a question of Dr. Little, said that in two cases of retinitis pigmentosa the parents had been related.

RAPID OPERATION ON RIPENING CATARACT, OR ARTIFICIAL RIPENING OF CATARACT,

by Dr. C. S. Bull, based on fifty cases. The operation consisted in large iridectomy with subsequent pressure

upon the cornea, but application only in cases with dense muscles.

In reply to a question the lecturer said that striation had not been caused by pressure upon the cornea.

Drs. White and Theobald reported cases.

Thursday, May 8th—Third Day.

Dr. E. F. Ingals presented a paper on

OPERATION FOR REMOVAL OF NASO-PHARYNGEAL FIBROMATA,

and exhibited instruments, advocating hot or cold wire snare.

Drs. Shuelry, Chisholm, Seiler, Bosworth, and Turnbull advocated the operation and reported cases, Dr. Bosworth recommending cauterizing the stump with cautery.

Dr. Ingals, in closing, did not consider the galvano-cautery preferable to cold water.

CHROMIC ACID POISONING OF NARES AND ADJACENT CAVITIES,

was the title of a paper by Dr. Mackenzie, of Baltimore. He referred to perforation of the septum in laborers employed in chromic acid works. The Eustachian tube and middle ear were also discussed.

Drs. Turnbull and Bosworth inclined to a syphilitic origin of perforation.

Dr. Seiler had seen cases not syphilitic.

Dr. Bosworth read a paper on

SARCOMA OF PHARYNX AND SOFT PALATE,

removed by wire snare successfully.

Drs. Roe, Mackenzie, and Seiler preferred galvano-cautery.

Dr. Uhler, of Maryland, exhibited a remarkable set of instruments, made of tin, in a very crude manner. No discussion.

Dr. Cutter, of New York, read a paper on

PHYSICAL CAUSES OF ASTHMA.

Neuroses were due to irritation from various agents. Hay fever was due to gravel in lung structures, and the pollen added as the exciting cause where this condition is present. Aphonia was due to chronic alcoholism.

Dr. Morgan had seen a peripheral paralysis due to central disturbance.

TRACHEOTOMY IN SMALL CHILDREN.

Dr. Roe reported the case of an infant with an egg-shell in the larynx, successfully treated by the method of Dr. Martin, without tube.

SECTION ON ORAL AND DENTAL SURGERY.

(By telegraph.)

Dr. T. W. Brophy, of Chicago, President.

Dr. John S. Marshall, of Chicago, Secretary.

Dr. George V. Black, of Illinois, read a paper entitled "Caries of Teeth and its Relations to the Germ Theory of Disease."

Dr. Jacob L. Williams, of Massachusetts, read a paper entitled "Importance of, and Treatment for, Assuring Healthy Dentine over Endangered Pulps."

Dr. Edward C. Briggs read a paper on "Sponge Grafting," in which he reported some successful operations. He thought the method might be useful in cases of cleft palate.

Dr. S. W. Harlan, of Illinois, read a paper entitled "The Removal of Stains from the Teeth caused by Administration of Medical Agents, and the Bleaching of Pulpless Teeth." He enumerated the various vegetable and mineral substances that discolor the teeth; these include all the preparations of iron except the dialyzed form, tobacco, and nitrate of silver. For the removal of stains he recommended tincture of iodine, liquor ammonia, and peroxide of hydrogen.

Dr. Jacob L. Williams read a paper entitled "Overdraft of Nervous or Vital Power as Affecting General Special Health." The author took the ground that an exhaustion of nervous force very markedly affects the healthy character of the gums and teeth. In the discourse the member brought out the importance of watching the condition of patients who are subjected to long or painful manipulation.

Dr. W. W. Allport, of Illinois, read a paper entitled "A Case of Vicarious Hemorrhage from the Gums associated with Pyorrhœa Alveolaris, the Result of Amenorrhœa."

AMERICAN SURGICAL ASSOCIATION.

Fifth Annual Session, held at Washington, D. C., April 30, May 1, 2, and 3, 1884.

(Continued from page 495.)

Thursday, May 1st—Second Day.

The Association was called to order pursuant to previous adjournment.

A vote of thanks was tendered President Moore for his able and scholarly address at the opening of the annual meeting.

A paper prepared by Professor Gross, of Philadelphia,

ON WOUNDS OF THE INTESTINES,

was read by Dr. J. Ewing Mears, of Philadelphia, and followed with remarks by Dr. H. F. Campbell, of Augusta, Ga.

Dr. Joseph W. Thompson, of Paducah, Ky., read a paper on the

SURGERY OF THE HAND ESPECIALLY AS APPLIED TO RAILROAD INJURIES.

The next paper read was by Dr. James McCann, of Pittsburg. It was somewhat similar to the preceding paper, being entitled

CLINICAL OBSERVATIONS ON THE TREATMENT OF SOME RAILROAD INJURIES OF THE EXTREMITIES.

In the course of the paper he described a successful triple amputation—both legs and an arm—in the case of a boy who had been severely injured by the cars at Johnstown, Pa.

After recess a letter was read from Professor Baird, United States Fish Commissioner, inviting the Association to visit the Washington fish hatching establishment. The invitation was accepted, and the thanks of the Association were voted Professor Baird.

Dr. Basil Norris, of Washington, moved to omit the usual annual dinner this year. As a rule but very few members are present, having other engagements. Drs. Dawson and Byrd endorsed this view of Dr. Norris, whose resolution was adopted.

The papers of Drs. Thompson and McCann were then discussed at some length by Drs. Prewitt, of St. Louis; Tiffany, of Baltimore; Maclean, of Michigan; Conner, of Cincinnati; Nancrede, of Philadelphia; Campbell, of Atlanta, Ga.; Gregory, of St. Louis, and Packard, of Philadelphia.

Papers were also read by Dr. John H. Brinton, of Philadelphia, and Dr. N. Senn, of Milwaukee, after which the session adjourned to meet at 11 A.M., Friday.

Friday, May 2d—Third Day.

Association met pursuant to adjournment, President Moore in the Chair.

The first business of the session was the discussion of Dr. Senn's paper, read Thursday,

ON TREATMENT OF BLOOD-VESSELS AND LIGATURE.

Drs. Maclean, Campbell, Gregory, Byrd, Billings, Watson, and Nancrede participated. At the close of the discussion Surgeon-General Hamilton entered the hall, and was invited to sit with the Association.

Dr. Moses Gunn, of Chicago, read a paper on the

PHILOSOPHY OF MANIPULATION IN THE REDUCTION OF HIP AND SHOULDER DISLOCATIONS.

The paper was discussed by Drs. Dawson, Briggs, Conner, Pancoast, and Campbell.

On reassembling after recess, an executive session was held, during which it was agreed that no papers should hereafter be read unless the authors are present.

The next paper read was by Dr. George W. Gay, of Boston, on

TRACHEOTOMY IN CROUP.

The paper was discussed by Drs. Basil Norris, of Washington; Byrd, of Quincy, Ill; Tiffany, of Baltimore; Dawson, of Cincinnati; Prewitt, of St. Louis; Sayre, of New York; Christopher Johnston, of Baltimore; Campbell, of Georgia; Gregory, of St. Louis, and Fifield, of Boston. Dr. Sayre strongly endorsed Dr. Gay's views on the treatment of croup, especially in regard to the use of steam as a remedial agent. He instanced a number of cases where complete cures were effected by the use of steam alone without result to tracheotomy. Several of the speakers expressed grave doubts as to the wisdom of tracheotomy in most cases of croup.

Dr. Weist, of Cincinnati, read an abstract of a paper prepared by Dr. John S. Coleman, of Augusta, Ga., on

THE MULTIPLE WEDGE PRINCIPLE IN THE TREATMENT OF ORGANIC STRICTURES OF THE URETHRA.

Dr. Sayre thought it somewhat strange that the author of this paper claimed to be the originator of the multiple wedge system, since, to his personal knowledge, this system has been in use in Bellevue Hospital, New York, for at least twenty years.

A paper

ON TRIFACIAL NEURALGIA

was read by Dr. J. Ewing Mears, of Philadelphia, advocating the excision of a section of the nerve involved in cases of this disease. The paper was favorably commented upon by Dr. Cheever, of Boston, and further discussed by Drs. Maclean, Gregory, Pancoast, Briggs, Dawson, and Hutchison.

Dr. William A. Byrd, of Quincy, Ill., read a paper on

TREPANNING FOR INSANITY

following a depressed fracture of the skull, after which the Association adjourned.

Saturday, May 3d—Fourth Day.

The Association met pursuant to adjournment.

The first paper read was by Dr. William T. Briggs, and was entitled

TREPHINING FOR EPILEPSY.

The paper was discussed by Drs. Sayre, Campbell, Mears, Roberts, Prewitt, Byrd, and Briggs, the author of the paper.

Dr. Basil Norris, of Washington, D. C., then read an interesting and valuable paper on

EXTIRPATION OF THE TONGUE IN CANCEROUS AFFECTIONS,

in which he gave the recorded cases of extirpation of the entire tongue as being one hundred and twenty-six in number. It is only within the past thirty years that authors have ceased to regard extirpation as an impracticable and cruel operation. After describing operations in several cases of removal of the tongue, Dr. Norris gave instances in which the persons operated upon retained the faculty of speech. Statistics in one hundred and twenty-four cases show ninety-five recoveries and twenty-nine deaths.

After recess the election of officers for the ensuing year was proceeded with, resulting as follows: *President*—William T. Briggs, Nashville, Tenn.; *Vice-Presidents*—J. C. Hutchison, Brooklyn, N. Y., and E. H. Gregory, of St. Louis; *Secretary*—J. R. Weist, of Richmond, Va.; *Treasurer*—John H. Brinton, of Philadelphia; *Recorder*—J. Ewing Mears, of Philadelphia; *Council*—Henry F. Campbell, Augusta, Ga.; Hunter McGuire, of Richmond, Va.; P. S. Connor, of Cincinnati, and J. S. Billings, of Washington, D. C. Treasurer John H. Packard, of Philadelphia, declined a renomination owing to a pressure of business.

A vote of thanks to Professor S. F. Baird for the use of the lecture-hall was unanimously adopted.

Washington was selected as the place of meeting, April, 1885. Dr. J. S. Billings, of that city, was elected chairman of the Committee of Arrangements to prepare for the next meeting, and a vote of thanks to Dr. Basil Norris was adopted for his agency in making preparations for the present meeting.

The following papers were presented in turn, after which the Association adjourned: "Surgical Interference in Cerebral Abscess," by Charles B. Nancrede, M.D., Philadelphia, Pa.; "The Treatment of Indolent Suppurating Bubo by Extirpation," with cases, by T. F. Prewitt, M.D., St. Louis, Mo.; "Artificial Respiration in the Sitting Position," by Henry F. Campbell, A.M., M.D., Augusta, Ga.; "Clinical Notes," by Donald Maclean, M.D., Detroit, Mich.; "Supra-Pubic Lithotomy," by W. S. Tremaine, M.D., U.S.A., Buffalo, N. Y.; "Some Points on the Pathology and Surgery of the Prostate," by J. W. S. Gouley, M.D., New York City; "The Localization of Perinephric Inflammation by means of Chemico-Anatomical Study," by John B. Roberts, M.D., Philadelphia, Pa.; "Unsettled Questions in Relation to Injuries of the Head," by David Prince, M.D., Jacksonville, Ill.; "Anæsthesia, and Plaster Paris Bandage in the Treatment of Sciatic Neuralgia," by John A. Comingor, M.D., Indianapolis, Ind.; "Practical View of Neoplasm," by E. H. Gregory, M.D., St. Louis, Mo.

Notwithstanding the determination of the Association to omit the annual dinner this year, twenty of the members, including President Moore, had a banquet at Wormley's Hotel on Friday night. The dinner was gotten up under the auspices of Dr. J. Ewing Mears, of Philadelphia, and Dr. L. McLane Tiffany, of Baltimore. President Moore acted as chairman and Dr. Mears as toast-master. The occasion was a very pleasant one.

More "Unusual Parturitions."—It appears that certain supposed unusual parturitions reported in The Record of December 29th, are not so infrequent after all. Dr. G. O. Bicknelle, of Knoxville, Tenn., writes: "I attended on February 14th, Mrs. M——, aged twenty-five, rather delicate, mother of one child, in labor with twins—girls. She was delivered about an hour after my arrival, the one following the other almost immediately, and the last was expelled, child, membranes, placenta, all intact. The child was kicking violently within the membranes, which were so thick as to require the aid of scissors to open."

Dr. A. B. Mitchell, of Delaware City, Del., writes that he was called to see Mrs. E——, aged thirty-three, multipara. He found a foot presenting, and soon delivered her of a good-sized male child On examining the woman again he found membranes protruding from the vagina, and soon another infant was born, child membranes, and placenta at once and together, the child completely enclosed.

Obituary.

SAMUEL D. GROSS, M.D., LL.D., D.C.L.,

PHILADELPHIA, PA.

THE life-work of this great man is finished, and how magnificent that work has been! Rather should we say, how magnificent it is, for though 'tis finished, and the great mind which wrought it has ceased to be, the perfected work will live on till there is no longer a place for the art of medicine. Even while we write there is sorrow in the profession throughout the length and breadth of our land; and wherever science is known, and greatness and learning honored, his death will be deplored.

Samuel D. Gross, M.D., LL.D., D.C.L. Oxon., LL.D. Cantab., LL.D. Edinb., died on Tuesday, May 6th, at his residence in Philadelphia, after an illness of some weeks. He was born near Easton, Pa., in July, 1805, and was therefore in the seventy-ninth year of his age. He received his classical education at Wilkesbarre, and at the High School at Lawrenceville, N. J., and began his medical studies at an early age, under the preceptorship of Dr. J. K. Swift, of Easton, after which he continued them for nearly two years under the celebrated Dr. George McClellan, of Philadelphia. He was graduated from the Jefferson Medical College in 1828, and entered upon practice in Philadelphia.

The leisure hours which fall to the lot of every young practitioner were spent by Dr. Gross in the translation of several standard French and German works. But his ability and activity removed him above the plane of the translator, and two years after graduating he brought out his first original work upon "Diseases and Injuries of the Bones and Joints." At this time he removed to Easton, but was elected in 1833 as Demonstrator of Anatomy in the Medical College of Ohio. This position he accepted, and two years later was elected Professor of Pathological Anatomy in the Medical Department of the College in Cincinnati. Here he delivered the first systematic course of lectures on pathological anatomy ever given in the United States, writing meanwhile his second book, "The Elements of Pathological Anatomy," the first work of its kind published in this country. From this chair he was called to the Chair of Surgery in the University of Louisville, where for ten years he gave evidences of the genius which was subsequently to be honored by the civilized world. From this chair he was called to that of Surgery in the University of New York, but returned at the end of one year, at the earnest solicitations of his former colleagues. Here he remained until 1856, when his Alma Mater called him to teach in the halls whence he had gone forth as a distinguished student.

Shortly after coming to Philadelphia he founded the Pathological Society of Philadelphia, being its first president. In 1867 he was elected President of the American Medical Association, and four years later was chosen Chairman of the Teachers' Medical Convention in Washington. In 1872 he visited Europe for the second time, not as an unknown or a rising man, but as a master in his science and art, a successful surgeon, and an author, whose reputation had circled the globe. While in England, the University of Oxford celebrated its one thousandth anniversary, and gracefully complimented the great surgeon and American medicine by conferring upon Dr. Gross the degree of D.C.L. In 1880 the University of Cambridge conferred upon him the degree of LL.D., which degree he had already received from the Jefferson College. On April 17, 1884, the University of Edinburgh, at its tercenary anniversary, conferred the degree of LL.D. upon him, and the University of Pennsylvania paid the same tribute to his learning on May 1st.

Not the least among his honors was his unanimous election to the presidency of the International Medical Congress, which met in Philadelphia in 1876. In 1880 he organized the American Surgical Association, of which he was president until 1883.

Of his greatest literary work, his "System of Surgery," it were scarcely necessary to speak. While his fame goes down to the posterity of succeeding generations as a blessed heritage, his great work on surgery will remain a tangible legacy to the students of many lands and tongues.

In four great cities Dr. Gross has been a teacher of surgery, and thousands of his pupils are now scattered throughout the Union. As a teacher of surgery he has long been recognized as the greatest which the country has ever produced.

At a dinner given to him in Philadelphia, in April, 1879, Dr. Gross said:—"After fifty years of earnest work I find myself still in the harness; but although I have reached that age when most men, tired of the cares of life, seek repose in retirement and abandon themselves to the study of religion, the claims of friendship, or the contemplation of philosophy, my conviction has always been that it is far better for a man to wear out than to rust out. Brain work, study, and persistent application, has been a great comfort to me, as well as a great help; it has enhanced the enjoyment of daily life, and added largely to the pleasures of the lecture-room and of authorship; indeed, it will always, I am sure, if wisely regulated, be conducive both to health and longevity. A man who abandons himself to a life of inactivity, after having always been accustomed to work, is practically dead."

How truly he carried out these precepts is seen by the fact that, within a few weeks of his death, he has prepared two able papers—one on "Wounds of the Intestines," for the American Surgical Association, which met in Washington last week; the other on "Lacerations of the Female Sexual Organs," for the Obstetrical Section of the American Medical Association, which met in the same city during the present week. Though well-nigh fourscore years of age, he has never allowed the great mind which has guided the surgical world to become for one moment idle.

As a companion and as a host Dr. Gross was one of the most genial and generous of men, and few who ever heard his voice will forget its majestic power and sweetness. As a writer he was most voluminous.

In 1843 he published "An Experimental and Critical Inquiry into the Nature and Treatment of Wounds of the Intestines," and it is a curious coincidence that just forty-one years afterward he should contribute a paper on this subject; in 1851, "A Practical Treatise on the Diseases, Injuries and Malformations of the Bladder;" in 1854, "A Practical Treatise on Foreign Bodies in the Air Passages," and the same year he issued a "History of Kentucky Surgery." In 1859 he published his noblest work, "A System of Surgery, Pathological, Diagnostic, Therapeutic, and Operative," the sixth edition of which was put out in 1882. At the outbreak of the war Dr. Gross issued a "Manual of Military Surgery," which passed through two editions and afforded important service in fitting young military surgeons for the better and more efficient discharge of their duties on the field and in the hospital. In 1861 he edited a large volume entitled "Lives of Eminent Physicians and Surgeons of the Nineteenth Century." In 1876 he published a "History of American Medical Literature from 1776 to the Present Time," and the same year an elaborate paper entitled "A Century of American Surgery."

In addition to the comprehensive standard works already mentioned, Dr. Gross also made many other noteworthy contributions to the literature of the medical profession, chiefly in the form of monographs and miscellaneous papers, contained in the current medical press of the country.

Dr. Gross leaves four children, upon one of whom, Professor Samuel W. Gross, now gracefully rests the

mantle so long worn by his distinguished father, as Professor of Surgery in Jefferson College.

In addition to his numerous titles from American and British institutions, he was member or fellow of several foreign societies, including the British Medical Association, the Imperial Medical Society of Vienna, the Royal Medico-Chirurgical Society of London, and the Clinical and Pathological Societies of London.

Dr. Gross was the first to suggest and perform the operation of wiring the dislocated clavicle to the sternum, or acromion process; the suturing of divided nerves and tendons; deep stitches for wounds of the abdomen; the direct operation for the radical cure of hernia by suturing the pillars of the ring; an operation for the cure of neuralgia in old persons, and a modification of Pirogoff's operation; and was the first to describe prostatorrhœa. Eminence in medicine, whether as an art or a science, requires labor which demands the most untiring industry, and a high order of talent. In neither of these requisites was he wanting, and whether progress in medicine be regarded as the history of the profession or the development of the curative art, it would be impossible to omit the history of his untiring and fruitful labors. Profoundly learned in all the anatomical, medical, and philosophical lore of his own and former times, there was lacking in him no quality requisite for an encyclopædic writer, whether in the literary or professional world. Of him, as of the father of modern medicine, it may be said that, "finding medical science confounded under a multitude of dogmatic systems, he appears to have made it his object to reform these evils, to reconcile scientific requirements and practical skill, to bring back the unity of medicine as it had been understood by Hippocrates, and at the same time to raise the dignity of medical practitioners."

There are epochs in the history of medicine with which famous and undying names are inseparably associated, and there are great names belonging to special departments in medicine. But for Dr. Gross, no one great operation is called by his name, nor was it his choice to make his own limits in the great field of medicine. His fame will rest securely on that highest work of having guided the current of medical science into new channels, and leading it into more fruitful fields by directing attention to the internal and real conditions of disease. His introduction of the study of morbid anatomy into this country makes him the bridge which spans the chasm between the epochs of the exclusive study of symptoms and the later efforts to find the cause of diseases by thorough scientific study. In his life was summed up the progress of medical learning, the elevation of his profession, and the extension of the limits of medical knowledge.

SUBSTITUTION OF THE SODIUM IODIDE FOR THE POTASSIUM IODIDE.—Not long ago we had occasion to advert to the use of the bromide of sodium in lieu of its potassic congener. Now Dr. Berg (*Archives of Medicine*, April, 1884) enters a plea in behalf of the sodium iodide. Both from theoretical considerations and practical experience, he urges the substitution of the sodium for the potassium salt. He makes the following claims for the iodide of sodium: 1. It can be used therapeutically for almost all, certainly the chief purposes for which potassium iodide is used, and, he believes, with similar beneficial effects. 2. Sodium iodide is more assimilable than the iodide of potash, both locally to the digestive organs and to the general system. 3. Many of the local and general undesirable effects which are produced by the potassium iodide do not follow the use of the sodium iodide. He concludes by saying that it is to be hoped, therefore, that the sodium iodide will be used by those whose clinical advantages admit of an extensive trial of the drug, so that a more extended experience may confirm that which a limited experience would seem to claim for this drug.

Correspondence.

OUR LONDON LETTER.

(From our Special Correspondent.)

THE BRITISH POOR-LAW SERVICE—DR. JOSEPH ROGERS AND HIS LABORS—COUNTRY GUARDIANS AND THE DOCTOR—TROUBLESOME PATIENTS—DEATH OF DR. J. PATTERSON CASSELLS.

LONDON, April 19, 1884.

A POST in the British medical poor-law service is by no means a sinecure. The pay is meagre and the work laborious and trying. All ordinary drugs have to be provided by the medical officer out of his salary, but quinine and a few other drugs are now generally allowed for as extras. Extra fees are allowed for surgical operations, and cases of midwifery. The pay is so poor that in many cases the only reason the doctor accepts the appointment is—in isolated country districts—to keep another doctor out of the parish. In many villages there is only one doctor and no other within a circuit of several miles. If he will not take the "Union" appointment a stranger will, and a rival practitioner will thus be introduced into the district, and the practice no longer be an "unopposed" one. If the salary is only twenty pounds a year some impecunious medical brother will be found willing to take it if the local Æsculapius turns up his nose at it. Twenty pounds a year is better than nothing to start on!

Poor-law guardians, too, are difficult personages to deal with. The doctor is no dignitary in their eyes. They look upon him as their servant and rather enjoy snubbing him. If he can be found to have neglected or maltreated a patient so much the worse for him. If he is careful and attentive to the patients but orders them too many extras he is extravagant and wasteful of the public money. Between these two stools the poor doctor often gets a fall. He often has not sufficient spirit to stand his ground or fears to offend the guardians, who may be county magnates. Perhaps some of them are his private patients, but are not on that account any the more disposed to take his part, but rather more likely to expect more attention in private on account of their public official position.

Here and there a parish doctor bolder than his brethren ventures to stand up for himself, and sometimes gets the better of the guardians. Dr. Joseph Rogers is a well-known poor-law medical officer who has been a very active defender of their rights and formed the "Poor-law Medical Officers' Association." Dr. Rogers has been in hot water several times with boards of guardians, but he never scruples to stand up for the right, even at personal inconvenience. He was recently suspended by the Westminster guardians (whose medical officer he is at present) and promptly appealed to the Local Government Board, who reinstated him but administered only a mild censure to the workhouse "master" with whom the difference had arisen, on the ground that the master retained the confidence of the guardians. Dr. Rogers has lately been triumphantly vindicated, as the guardians who opposed him have lately been rejected by the rate-payers. If the new Board are consistent they will dismiss the master whom Dr. Rogers showed had been guilty of cruelty.

In a country town frequently visited by me, about threescore miles from London, the guardians summoned their medical officer before them to reprimand him as they thought. They expressed their dissatisfaction with the expense he had incurred by ordering various "medical comforts." "We find you have been ordering so many pounds of beef," and so on, quoth the chairman, "and we don't exactly understand it. You know this is very expensive," etc. "Exactly," replied the doctor, "but if you can inform me of any way of making beef-tea without beef I shall only be too happy

to learn." The attack was then varied and the Board quietly informed the doctor that it was not their money that he was spending but the rate-payers. "Yes, gentlemen," replied the doctor, who was an Irishman, "it is not your money that I am spending; neither is it mine. It is the rate-payers' money, but you are the representatives of the rate-payers. And, gentlemen, 'he that giveth to the poor lendeth to the Lord.' Look upon me as your almoner. Good morning, gentlemen," and he t ok up his hat and left.

Patients, too, are very unreasonable, and generally those who are the least ill expect the most attention. They don't always get it. In an Eastern suburb of London, some years ago, a medical man I have known accepted the appointment of visiting medical officer to the parish. The work was new to him and did not suit him. On one occasion he was sent for in haste to see a patient said to be very ill. He went, and after toiling up a lofty flight of stairs arrived panting at the top to find a poor woman suffering from an attack of catarrh. "Why, it's only a common cold," roared the doctor, "what did you send for me for? Take a quart of gruel and tallow your nose," and he turned round and went home. The patient complained of want of attention from the doctor, so did others. In three months the doctor was no longer the parish medical officer. He had resigned. The poor-law medical service is not suited to medical men who are troubled with oversensitiveness, either for the patient's comfort or their own ease.

Dr. Cassells, of Glasgow, has just died. He was a rising man as an aurist and personally one whom it was a pleasure to know. He had been in indifferent health for some little time, and was lame. He was the author of several aural papers and the translator of Politzer's work.

THE SKIN AND CANCER HOSPITAL.

To the Editor of The Medical Record.

SIR: As the impression seems to be more or less prevalent that the New York Skin and Cancer Hospital has abandoned the care of cancer, we deem it desirable to have the error corrected. The aim of this institution from the first has been to undertake the study and treatment of this disease, and over one-third of its beds have, from the opening of the present building, been set apart for this purpose.

A tract of land of nearly one hundred and fifty acres has recently been secured, just beyond the city line, and the plans for cottage pavilions have already been drawn. It is proposed to erect some of these at once, and to add to the number as they may be required, so as to afford unlimited accommodations for each and every case of cancer requiring assistance. Both early cases for operation are received and those which are chronic and hopeless.

Our city hospital, No. 243 East Thirty-fourth Street, will still be continued, and clinics held there as follows: For skin diseases, daily from two to four P.M. For cancer, on Monday, Tuesday, Friday, and Saturday, at the same hours.

L. D. Bulkley, M.D.,
Geo. Henry Fox, M.D.,
J. E. Janvrin, M.D.,
R. F. Weir, M.D.,
E. L. Keyes, M.D.

The Bay View Charity Hospital at Baltimore is now to have its medical service administered by the Faculties of two of the Baltimore Medical Colleges. A great amount of clinical material, heretofore wasted, will now be utilized.

Army and Navy News.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, United States Army, from April 27, 1884, to May 3, 1884.

Heger, Anthony, Major and Surgeon. From Department of Texas to Department of the East. S. O. 101, par. 2, A. G. O., May 1, 1884.

Happersett, J. C. G., Major and Surgeon. From Department of Texas to Department of the East. S. O. 101, par. 2, A. G. O., May 1, 1884.

Bentley, Edwin, Major and Surgeon. From Department of the East to Department of Texas. S. O. 101, par. 2, A. G. O., May 1, 1884.

Middleton, Passmore, Captain and Assistant Surgeon. From Department of Texas to Department of the Missouri. S. O. 101, par. 2, A. G. O., May 1, 1884.

Koerper, E. A., Captain and Assistant Surgeon. From Department of the East to Department of Dakota. S. O. 101, par. 2, A. G. O., May 1, 1884.

Dickson, J. M., Captain and Assistant Surgeon. From Department of the East to Department of California. S. O. 101, par. 2, A. G. O., May 1, 1884.

Girard, A. C., Captain and Assistant Surgeon. From Department of Dakota to Department of the Missouri. S. O. 101, par. 2, A. G. O., May 1, 1884.

Girard, J. B., Captain and Assistant Surgeon. From Department of Arizona to Department of the East. S. O. 101, par. 2, A. G. O., May 1, 1884.

Hall, J. D., Captain and Assistant Surgeon. From Department of Dakota to Department of the Columbia. S. O. 101, par. 2, A. G. O., May 1, 1884.

Hall, William R., Captain and Assistant Surgeon. From Department of the Missouri to Department of Texas. S. O. 101, par. 2, A. G. O., May 1, 1884.

Cunningham, T. A., Captain and Assistant Surgeon. From Department of the East to Department of the Missouri. S. O. 101, par. 2, A. G. O., May 1, 1884.

McCreery, George, First Lieutenant and Assistant Surgeon. From Department of Arizona to Department of Dakota. S. O. 101, par. 2, A. G. O., May 1, 1884.

Cochran, J. J., First Lieutenant and Assistant Surgeon. From Department of the Missouri to Department of Arizona. S. O. 101, par. 2, A. G. O., May 1, 1884.

Shufeldt, Robert W., Captain and Assistant Surgeon. Relieved from temporary duty in Surgeon-General's office, and ordered to report to Lieutenant-Colonel Basil Norris, Surgeon U.S.A., Attending Surgeon, Washington, D. C., for temporary duty in his office. S. O. 100, par. 6, A. G. O., April 30, 1884.

Barrows, C. C., First Lieutenant and Assistant Surgeon. Relieved from duty at Fort Grant, A. T., and ordered to report for duty at Whipple Barracks, A. T., relieving First Lieutenant W. E. Hopkins, Assistant Surgeon, who, upon being relieved will report for duty as Post Surgeon at Fort Grant, A. T. S. O. 31, par. 1, Headquarters Department of Arizona, April 21, 1884.

Phillips, John L., First Lieutenant and Assistant Surgeon (Fort Warren, Mass.). Ordered to report for temporary duty to the Commanding Officer at Fort Preble, Me. S. O. 81, par. 1, Headquarters Department of the East, April 28, 1884.

Cuyler, John M., Colonel and Surgeon (retired). Died at Morristown, N. J., April 26, 1884.

Official List of Changes in the Stations of Medical Officers U. S. Navy, for the week ending May 3, 1884.

Harvey, H. P., Passed Assistant Surgeon, detached from Naval Hospital, Chelsea, and ordered to U.S.S. St. Mary's.

McCarthy, R. H., Passed Assistant Surgeon, ordered to Naval Hospital, Chelsea.

Waggener, J. R., Passed Assistant Surgeon, detached from U.S.S. St. Mary's, and ordered to U.S.S. Hartford.

Wise, J. C., Surgeon, detached from U.S.S. New Hampshire, and ordered as member of Board of Examiners at Annapolis.

Craig, T. C., Assistant Surgeon, promoted to Passed Assistant Surgeon.

Medical Items.

Contagious Diseases—Weekly Statement.—Report of cases and deaths from contagious diseases reported to the Sanitary Bureau, Health Department, for the week ending May 3, 1884:

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Cases.								
April 26, 1884.....	6	5	100	3	102	45	0	0
May 3, 1884.....	3	14	81	5	99	35	0	0
Deaths.								
April 26, 1884.....	0	2	18	2	7	20	0	0
May 3, 1884.....	0	5	14	4	14	16	0	0

Liquor Guttæ Perchæ and Chrysophanic Acid.—A five per cent. solution of chrysophanic acid in liquor guttæ perchæ is a favorite application for chronic eczema. Auspitz uses a ten per cent. solution of chrysarobin for psoriasis.

Turpentine in Diphtheria.—In Germany and France the value of large doses of oleum terebinthinæ rectificatum in diphtheria is being much discussed among therapeutists.

Apomorphia in Infantile Convulsions, in doses of two minims of the two per cent. solution, has been successfully used by Dr. Edward Cockrell, of England.

Rue de Darwin is the name recently given to a street in Paris by the municipal authorities.

Chloral Hydrate in the Treatment of Gastric Ulcer.—Dr. Landon B. Edwards reports success in three cases from the use of the above remedy.

Creasote in Phthisis.—Drs. Coze and P. Simon have made a series of experiments to test the power of antiseptics upon the tubercle bacillus. Their results, though somewhat indefinite, justify the use of creasote in phthisis.

Iodide of Sodium.—Dr. H. W. Berg, in the *Archives of Medicine*, urges the substitution of iodide of sodium for iodide of potassium, as being less injurious to health and nearly as effective therapeutically.

A Patent Lifter.—Dr. Hase, of Hanover, has devised an apparatus which is attached to the bed, and by which a patient can be lifted bodily into the air, allowing wounds to be dressed and bandages applied with great ease.

The Sixth Reported Case of Downward and Backward Dislocation of the Acromial End of the Clavicle.—Dr. Cassius D. Wescott, of Chicago, Ill., sends us a report of the following very rare case: "Mrs. K——, aged twenty-six years, while going down-stairs made a misstep and fell three steps, striking against the baluster in such a way as to drive the acromion process of the scapula *over* the end of the clavicle. I saw her twenty-four hours after the accident. There was little swelling and no pain, except upon motion of the arm; notable absence of the usual prominence of the clavicle in its outer half, but by burying my fingers deep in the neck, I could outline the bone to its extremity, as it passed beneath the acromion, and demonstrate the absence of fracture. With the assistance of my friend Dr. Luce, the patient was etherized and I reduced the dislocation by putting my knee between the shoulders and drawing them forcibly backward. Some difficulty was experienced in maintaining the reduction, but patient recovered without 'impairment of function' and with no visible deformity. Prof. Edmond Andrews in the 'International Encyclopædia of Surgery,' says that only five similar cases have been reported."

Capsicum in three-grain doses is recommended by Vidal for piles. Capsicum in a bolus of twenty grains is a favorite army remedy for acute alcoholism.

Gelsemium in After-pains.—Dr. L. E. Holt reports a case in which fractional doses of gelsemium, frequently repeated, relieved after-pains.

Lacing up Scalp-wounds.—Dr. S. J. Bauker, of Fort Edward, N. Y., reports to us a case in which the method of lacing up wounds described in The Record recently was very successful. A man received a severe injury to the scalp, it being torn for five inches. Being washed, shaven, rubber plaster applied and laced, it healed nearly all by first intention.

Missing the Patient.—A physician in the country being called to see a patient at some distance, took his gun along in hopes to amuse himself by shooting a little on the way. A friend meeting him asked: "Where are you going, doctor?" "To visit a patient." "Are you afraid you will miss him?"

A Perilous Toy.—The so-called "serpent's eggs" of the toy-shops contain, says Dr. George Hay (*Medical Times*), from one to three-tenths of a grain of sulphocyanogen, quite enough to kill a child if he should happen to swallow it.

One Good Effect of Listerism.—Since the introduction of antisepsis into Germany and Austria, German surgeons no longer, it is said, wear mourning under their finger-nails.

Professor Volkmann, of Halle, is said to be an Anglo-maniac and a dude, but a brilliant surgeon for all that.

Micrococci of Syphilis.—Barduzzi confirms the views of Klebs, Aufrecht, Birch-Hirschfeld, and Bergmann, that a peculiar micrococcus exists in the lymphatic vessels and glands of syphilitics.

Carbolic Acid is the Best Disinfectant for Phthisical Sputum, according to the experiments of Drs. Schull and Fischer. A five per cent. solution will disinfect an equal amount of sputum.

How Doctors Disagree.—In The Record of April 25th, Dr. Boyland, writing of Florida as a health resort, thinks it of doubtful value in phthisis, except in the very earliest stages. Dr. M. J. Halloran writes to the *Medical and Surgical Reporter* that "the temperature is favorable and the mean relative humidity is peculiarly adapted to the treatment of all forms of pulmonary disease."

Treatment of Hoarseness in Speakers and Singers.—M. Corson advises the placing in the mouth of a piece of borax, about two or three grains; it produces an abundant salivation and the voice becomes clear. He also recommends the use of a couple of grains of potassium nitrate in a glass of sugar and water, or an infusion of forty-six grains of jaborandi, and—shortly before using the voice—of a gargle with six or seven ounces of a decoction of barley, one to two drachms of alum, and two drachms of honey of roses.

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Original Lectures.

ON THE METHODS OF STUDYING THE BRAIN.

ABSTRACT OF THE CARTWRIGHT LECTURES, DELIVERED BEFORE THE ALUMNI ASSOCIATION OF THE COLLEGE OF PHYSICIANS AND SURGEONS, NEW YORK, FEBRUARY 2, 4, AND 6, 1884.

BY BURT G. WILDER, M.D.,

PROFESSOR OF PHYSIOLOGY, COMPARATIVE ANATOMY, AND ZOÖLOGY IN CORNELL UNIVERSITY, AND OF PHYSIOLOGY IN THE MEDICAL SCHOOL OF MAINE.

(Continued from page 450.)

LECTURE III.—PART I. (Concluded).

PORTA (*Foramen Monroi*).—Perhaps no single feature of encephalic structure involves a greater number of morphological considerations or stands more in need of elucidation than the communications between the aula and the procœliæ; certainly there is none which better illustrates the defects of the current methods of regarding, manipulating, describing, and figuring the brain, and the superiority of the methods advocated in the present course.

During the last hundred years the "Foramen of Monro" has been variously and incongruously described and figured as a single orifice and as two; as a horizontal passage and as triradiate; as oval, semilunar, and nearly circular; as a hole and as a notch; as an independent foramen and as merely one end of the "great transverse fissure;" as both visible and invisible from the meson; as named after two anatomists, father and son, of the same name (which name is spelled in three different ways); and, finally, as having, in the human adult, a purely imaginary existence.

Its existence.—In 1783 Alexander Monro, *secundus*, described the orifices in question. Since Monro, it is to be feared that many dissectors of the human brain have either failed to observe the orifices at all, or have carelessly confounded them with the artificial communication between the "lateral ventricles" and the "third," which is produced by removing the cerebrum from the subjacent parts. But it seems to have been reserved for a distinguished anatomist and physiologist to exemplify the outcome of imperfect morphological ideas and faulty manipulative methods by a formal and public denial of the existence of the "foramen of Monro."

As reported officially in *Le Progrès Médical* for 1879, p. 483, there was read by M. Mathias Duval a paper entitled "De la non-existence des trous de Monro," in which that author proved, to his own satisfaction at least, that the foramina in question had no actual existence.

Notwithstanding the reputation of Duval, the dignity of the learned society before which his communication was made, the tacit indorsement of his views by the society and the journals which have printed the paper, and the fact that, so far as I know, no one besides me has publicly protested against them, on the present occasion I shall content myself with briefly enumerating the various methods in which the portæ may be demonstrated upon the brain of man or of any other mammal, bird, reptile, or amphibian.

MODES OF DEMONSTRATION OF THE PORTA (*Foramen Monroi*).—1. *Inflation.*—If a brain is properly supported, as upon cotton, and air blown cephalad from the metacele, or any other cœlian division caudad of the medicommissure, the hemispheres will be coincidently expanded; or, if it be blown into one side of the procele, the expansion will be produced in the opposite hemisphere, especially near the end of the temporal lobe; if the brain be under a liquid, and the procele be opened, the air will escape as bubbles.

2. *Injection of liquid.*—A colorless liquid serves the same purpose as air, but, if it contains colored particles in suspension, the staining of the cœlian lining will enable the observer to determine the course of the liquid and the non-rupture of the parietes.

3. *Injection of material capable of solidifying into a cast.*—As stated in Lecture II., wax casts of the human cœliæ were made by Welcker in or before 1878, when he published his figures. Prior to my acquaintance with Welcker's paper, with the aid of Professor Gage, I had made plaster casts of the cœliæ of a cat and sheep, and the porta of the latter was represented on each side as a narrow neck. More recently, the cœliæ of the cat were injected successfully with the three compositions named in Lecture II. The only precaution to be observed is to refrain from using force.

Mesal exposure.—This is the method usually employed, yet it is perhaps the least desirable, for the simple reason that the porta in man, the cat, and mammals generally, is invisible when the meson is squarely viewed. By looking obliquely, from caudad of the fornicolumna, the porta may sometimes be seen as an interval between it and the thalamus.

Removal of the mesal wall of the præcornu.—As indicated in "Anatomical Technology" (p. 456, Plate IV., Fig. 16), if the mesal wall of the præcornu be removed by successive thin slices not quite reaching the terma and fornicolumna, then a headed bristle or a probe may be passed from the cornu to the aula, or in the opposite direction.

Transverse sections.—If transections are made, they may be thick, excepting in the aulic region (nearly dorsad of the chiasma), where they should be so thin as not to include the cephalic and caudal walls of the portæ within the same slice. The best results are obtained by combining transection with dissection after the plane of the portæ is nearly reached.

Horizontal section of an alcoholic brain.—If either the dorsal or the ventral region of a brain be removed in successive slices, it will be seen that the porta at each side opens from the mesal aula into the corresponding lateral portion of the procele. This method is best applied when the cœliæ have been alinjected.

Lateral exposure.—The brain is supposed to have been hardened and the cœliæ alinjected. The lateral wall of the medicornu is first removed in successive slices, and its course followed by cutting obliquely until the præcornu also is opened. The striatum is removed with the lateral wall of the præcornu by an incision just laterad of its plane of junction with the thalamus. The porta then appears as a perfectly distinct orifice, through which a bristle may be passed into the aula and diacele, and, if the opposite side be treated in like manner, into the corresponding cella.

Fresh dissection.—As a rule, as stated in Lecture II., the examination of any difficult feature upon a fresh brain should not be undertaken until skill has been gained upon alcoholic preparations. If the parts can be kept from tearing, the fresh brain has the advantages of displaying the natural color of the several portal boundaries,

and of yielding, to a certain extent, so as to exhibit their connections in a better light.

The porta does not appear at the meson.—In most figures of the mesal aspect of the hemiencephalon the "foramen of Monro" is represented by an oval or semicircular dark spot. Judging from the preparations made or examined by me, the porta is invisible when the human meson is perpendicularly viewed, and I have yet to see it in any other mammal. This is due to the obliquity of the corresponding surfaces of the thalami and the fornicolumnæ.

Form and direction.—I have not yet satisfied myself as to the precise form of the undistorted porta in the adult human brain. It is certainly narrower than a circle and wider than a slit. Provisionally, it may be described as an elongated, somewhat irregular ellipse.

The direction of the axes will, of course, vary with the position of the brain, but, for convenience, the sides may be regarded as cephalic and caudal, and the ends as dorsal and ventral.

Dimensions.—In an adult human brain, the cœliæ of which was injected with alcohol, the length of the porta was 6 mm. Judging from Welcker's casts, it was about 4.5 mm. in the brain he employed. Its width is more variable and less easily determined, but seems to vary from 1 to 7 mm. The points of reflection of the endyma upon the plexus are not always directly opposite, so that the fornical or the thalamic border of the porta may be longer than the other.

Relatively to the size of the whole brain, the porta is much larger in the cat than in man. In the former its width varies from 0.5 to 1 mm., and its length from 3 to 4 mm. Its boundaries are essentially the same as in man in all mammals examined by me. Its limits are most satisfactorily exhibited in vertebrates where the rima is not formed.

Boundaries.—Passing over the confused or erroneous descriptions of earlier works and some recent ones, each porta is correctly described in Quain and Gray, as between the anterior end of the thalamus and the corresponding pillar of the fornix. Its caudal boundary is the thalamus, its cephalic boundary is the fornicolumna, and its ventral limit is formed by the continuity of these parts.

Here the description ceases. So far as I know, the dorsal limit of the porta, the upper end of the foramen of Monro, has never been indicated outside of my publications, nor, indeed, does any other anatomist appear to have been impressed with the necessity of determining what that limit is, or even of ascertaining that one exists.

That the porta is a completely circumscribed orifice is most satisfactorily demonstrated by means of a cast, the material being injected *per luram* as described in Lecture II. The manner of its circumscription at the dorsal end may be determined by careful dissection in any of the ways above indicated. Since the ventral end is simple enough, it may be opened from any direction. The interval between the thalamus and the fornix will then be seen to be partly occupied by a fold of pia, the portiplexus. The ventral border of this plexus hangs free, but, if the syringotome or some similar instrument of exploration is employed, and the plexus carefully pushed aside, first one way and then the other, it may be ascertained that the smooth endyma which lines the porta, like all other cœlian divisions, is reflected from the fornix upon the cephalic face of the plexus and from the thalamus upon its caudal face, and that in this way the dorsal end of the passage is closed as really and as effectually as if the plexus were not there at all, and the endyma were continued directly across from the fornix to the thalamus, as presumably it did in the embryo.

The porta, then, is a completely circumscribed orifice, a foramen with continuous varieties; but, while two sides and one end are bounded not only by endyma but by substantial masses, the dorsal end is limited only by the endyma as it is reflected upon the intruded plexus.

The porta and rima are different and distinct.—This follows from the foregoing description of the former, and from the now generally accepted description of the latter. The porta is a primary, fundamental, and essential communication between the mesal and lateral parts of the procele; the rima is merely a thinned-out line of the medicornual parietes through which the pia intrudes as the proplexus, and the latter hangs within the cornu just as the portiplexus hangs within the porta.

Original Articles.

LEAD PARALYSIS IN CHILDREN.

By HENRY D. CHAPIN, M.D.,

ATTENDING PHYSICIAN TO OUT-DOOR DEPARTMENT BELLEVUE HOSPITAL (CHILDREN'S CLASS).

THE rarity of lead paralysis in early life is shown by the statistics of Tanquerel des Planches, who found among one hundred and two cases only two below the age of twenty years. I have had under observation for the past year two very interesting cases of lead paralysis, occurring in children who came to Professor J. Lewis Smith's clinic. The histories were begun in the latter part of May, 1883.

Robert W——, aged five years, and Thomas W——, aged seven years, had always been healthy and had never had any disease except pertussis. The first thing wrong their mother noticed was that just before New-Year's day, 1883, Thomas began to complain of stomach-ache. This was not very severe at first, and on the following day Robert began to suffer from similar pain. This grew more severe in several days, and lasted about four weeks. The pain was not continuous; at times it would grow worse, but it was never severe enough to double them up. Occasionally they would wake up at night crying, and ask for water. They now began to complain of pains and soreness in the legs, and were averse to walking.

One morning in the latter part of January their mother found they could scarcely get out of bed, and when put upon the floor they could with difficulty sustain the weight of the body. This soon increased to almost complete paralysis. After a few days they began to get better, and could soon walk with difficulty, but the improvement did not increase beyond a certain point, as their gait continued uncertain. They remained fairly well for a month or more, when they were again seized with abdominal pains and an additional loss of power in the lower extremities. They slowly improved from this attack, but their legs were left in the same condition of partial paralysis of the extensor muscles. About the middle of May they were seized with a third exacerbation of symptoms, which were severer than the previous ones. The paralysis of the lower limbs was more complete than usual, and the mother noticed that the older boy could not grasp objects well.

It was at this time that the cases came to the clinic. Thomas had a blue line at the junction of the incisors with the gums in the lower jaw. He was unable to raise his hands, and could with difficulty extend the second and third phalanges of his left hand, and was utterly unable to extend these phalanges in the right hand. The supinators were not affected. He could walk with difficulty, and his mother said she had hard work to get his shoes and stockings on, as his toes bent under so. His eyes were normal, and he was passing water freely. Robert, the younger boy, suffered from a milder grade of symptoms. He had no blue line on the gums, and his upper extremities were not affected.

On examining the premises in which these children lived, I found their father was a painter, and that for two years some remains of paint had been kept in a closet immediately adjoining the sleeping-room of the children. There was some white lead and turpentine, and a few bottles with coloring matter. At Christmas the father

painted the rooms in which the children spent most of the day with two coats of white paint, after which they were stained and grained. About a week after this the first symptoms of lead-poisoning manifested themselves.

After keeping the children under observation for a few weeks, during which time they slowly improved, I lost sight of them entirely. During the early part of last March, happening to be in the part of town where they lived, I thought of them and stopped in to see them. To my surprise they had not recovered, and were in a much worse condition than when I had seen them nearly a year before. They were utterly unable to walk, and complaining of pains all through the body. When I lifted them to see if standing were possible, they cried out with pain. Both had well-marked wrist-drop. Their breath was extremely offensive, almost fetid, and Robert's gums were soft, spongy, and ulcerated. The front teeth in his lower jaw were very loose, and I lifted out the middle incisors, as they were almost dropping from their sockets. Thomas, the older boy, had his teeth still firm, although his gums were in an offensive condition. He was complaining of headache, and had attacks of vomiting. The completeness of their paralysis was shown by the fact that at this time the muscles did not respond to the faradic or the interrupted galvanic current. Sensation was not impaired. I learned from the mother that since I had seen the children they had suffered from several such attacks, each one getting worse. They would get fairly well and begin to walk about a little, when they would have a relapse, and completely lose power in the lower extremities. They also had wrist-drop, the younger boy having contracted this at the last attack. These relapses always began with pains in the stomach and limbs, following which there would be an exacerbation of the paralysis, especially in the lower extremities. After a few weeks they would be able to leave the bed and be about until the next attack. They have now had in all about seven such seizures, the last one having been the longest and most severe. The lead was removed from the closet a year ago, and after a careful inspection of the premises I could find no cause for these repeated attacks.

I had them removed to hospital, where they are improving, having recovered the use of the wrists, but still walking with some difficulty from a partial paralysis of the muscles on the anterior part of the leg, which give a reaction of degeneration by electricity. Specimens of their urine, examined under the direction of Dr. Fowler, show traces of lead.

As seen at the present time, with somewhat atrophied lower extremities, they bear a close resemblance to the common spinal paralysis of infancy and childhood. In fact, I am not sure but that lead may sometimes form a factor in paralyses of children that are called by other names. An interesting case that recently came under my observation may be cited in this connection. Francis S——, aged two years and three months, a healthy and well-nourished child, was brought to me with a cellulitis of the thumb and adjacent part of his right hand, due to the irritation of a splinter. I made a free incision and ordered a poultice. The mother did not appear with the child for some weeks, when she brought him to me with his lower extremities paralyzed. I found that after continuing the poultice for a few days, she had called in another physician, who had ordered a solution of acetate of lead (℥ ij.–Oj.) to be constantly applied to the raw surface. She had faithfully followed his instructions for a week, using wet cloths, and at times keeping the hand dipped in the solution, when the child began to lose power in his legs. The paralysis increased gradually until in three or four days it was complete. When I saw the boy, a week or so after this, improvement had begun to take place, but he was still unable to stand. I could not tell whether he had pains in his legs, as he was very fretful on every occasion I saw him, and cried most of the time. He continued slowly to improve for the next month or so, and is now quite well.

The connection of lead with this case may have been simply a strange coincidence, but I have been interested in seeing that Seeligmüller, in Gerhard's "Handbuch der Kinderkrankheiten," quotes Duchenne fils as having cited a case in which a child of three years got spinal paralysis by drinking water contaminated by lead. In fact, I think it is very reasonable to suppose that some of the cases of spinal paralysis in children are caused by lead. We know that at this period of life the spinal centres are extremely active and susceptible, and there are many ways in which children may be exposed to the toxic influences of lead. It is also known that lead is often prone to attack the spinal cord. In an article entitled "A Contribution to the Pathological Anatomy of Lead Paralysis," Dr. W. R. Birdsall has cited an instance in which an autopsy was made in a case of lead paralysis, and a mild grade of subacute myelitis was found to exist. The same writer has collected records of fourteen cases in which autopsies were made and the spinal cord examined, and in six of them changes were found to a greater or less degree, and changes similar in character, that is, a subacute myelitis in different regions. Again, he states that because changes have sometimes been found in the muscles and muscular nerve-branches before they could be detected in the cord, it is not safe to consider this as a conclusive argument against the theory of a central origin of the changes.

Thus, interference with the nutrition of centrifugal nerves and organs is more apt to be caused by impairment of function in the spinal centres than the former are to react upon the latter. There are also clinical considerations tending to show that lead paralysis is frequently, at any rate, of spinal origin. Thus, Ross calls attention to the fact that the muscles are affected in groups, according as they are associated in their actions, and not according to the distribution of a particular nerve, such as the musculo-spiral. The mode of invasion of lead paralysis also corresponds to that which occurs in infantile paralysis and progressive muscular atrophy, both of them spinal diseases, and differs from that of paralysis of peripheral origin. In the "Transactions of the American Neurological Association for 1882," Dr. Seguin is mentioned as reporting a case in which the symptoms of lead paralysis were absolutely identical with those of poliomyelitis, and this was but one of a number of cases he had seen in which it was impossible for any neurologist to make a diagnosis between the two diseases.

The reaction in lead paralysis, whether limited or general, is the same as that of poliomyelitis, and the symptoms even of limited lead paralysis are often identical with atrophic paralysis with pain. He also stated that he was unwilling to give up the idea that lead paralysis, whether localized or disseminated, is a form of poliomyelitis. It is at any rate certain that the irritative action of lead on the ganglion cells of the spinal cord may in children give the symptoms of the ordinary spinal paralysis, and that it must not be overlooked as a possible cause of this affection. Bearing this in mind will have a very practical influence in treatment, as, when lead is discovered, the cause can be removed and eliminative treatment be begun before degeneration has gone too far.

VERATRINE TREATMENT OF PRURITUS.—Dr. Cheron highly recommends the following ointment where the pruritus is localized to the axilla, the vulva or thighs, or the abdomen. He declares that if this pomade is applied morning and evening, the affection will yield to its influence. Veratrine, grs. iij.; axunge, ℥ j. When the pruritus is general over the body, he advises the veratrine to be given internally in pills. Veratrine, one-third grain; liquorice powder, q. s. For forty pills, two to six a day.

THE TREATMENT OF BURNS.

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As ordinarily treated, burn cases give very little satisfaction to the practitioner, and most of the physicians with whom I have talked on the subject express a decided dislike for them. If we analyze this repugnance we shall probably find that it arises from the expectance of the necessity for frequent dressings and from the supposition that profuse suppuration and disagreeable odors cannot be avoided in severe cases. In fact a good many persons seem to be able to estimate burns in terms of smell only. The patches of weak granulations which may remain for months in the midst of extensive scars also have a tendency to destroy the doctor's love for the beautiful in the way of reparative processes.

Thanks to the antiseptic method of wound-dressing, it is now possible to do away with almost all of the disagreeable features which were formerly connected with the treatment of an extensive burn, and such a case may be made to arise from the insignificance of a nuisance and to assume the dignity of an object for enthusiastic interest. Frequent dressing is not only uncalled for but is very injurious. Odors need not be produced, and as for profuse suppuration, that may be relegated to the past as a pathological curiosity. Nature need not become discouraged and refuse to help the timorous epithelium cells across the little stepping-stones of her granulating surfaces; and repair may be made to go on so rapidly and with such vigor that lagging seldom occurs.

The constitutional treatment in severe burn cases offers a wide field for observation, and few suggestions are made in this article, because even with a long list of histories at my disposal, it is difficult to present any particular line of action.

The classification of the varieties of burns into six degrees is Dupuytren's, and is probably the best descriptive classification extant.

Burns of the first degree, in which the skin is hyperæmic but is not destroyed at all, are usually of not much importance, but the stinging, burning pain always calls for relief, and this may be promptly and completely relieved by the following method: 1. Tear any convenient soft fabric into strips a couple of inches wide, and spread them thickly with a mixture of carbonate of lead and vaseline in equal parts. 2. After the strips of painted cloth have been applied smoothly over the burned surface cover the whole with a piece of gutta-percha tissue or oiled silk. 3. Cause a free movement of the bowels. If the carbonate of lead is mixed with vaseline there is no danger of absorption, but if any animal or vegetable oil should be used, there might be some risk in applying this dressing. I have, however, used ordinary white paint on several occasions without getting any symptoms of lead poisoning. The gutta-percha tissue prevents the dressing from drying, and adds an element of neatness which is quite important.

In burns of the second degree, where the cuticle is destroyed, the antiseptic method of wound treatment comes into play, and the proper management of these cases will insure the most pleasing results.

If a small portion of the body have been burned, as, for instance, the forearm and hand, the plan to be carried out would be as follows: 1. Anæsthetize the patient. 2. Pull off all of the cuticle which is loose, and all that has been raised in blebs and vesicles. 3. Lay the arm on a towel which has been wrung out in bichloride of mercury solution (1 to 2,000), and carry a rubber blanket underneath all; arrange the rubber blanket in such a way that irrigating fluids shall run into a pail placed for their reception. 4. Scrub the burned area and the skin in its vicinity very thoroughly with a soft brush and at the same time bathe the parts copiously with bichloride of mercury solution (1 to 2,000) or with a solution of salicylic and boracic acids in the proportion of one grain of the former and six grains of the latter to the fluid ounce of water. 5. Cover the burned surface evenly with strips of protective oiled silk which have been stored in an antiseptic solution. 6. Sprinkle iodoform along the margins of the strips of protective. 7. Place several layers of carbolized or sublimated gauze over the protective and cover still further with a thick wadding of borated cotton placed between layers of antiseptic gauze. 8. Apply snugly a carbolized roller bandage. 9. Keep the bowels open. 10. Quiet constitutional disturbance with bromide of potassium and chloral hydrate. The dressing should not be disturbed until the eighth day, and when it is removed it will be found that everything is completely healed and no further treatment is necessary. Of course the brush which we use has been washed in an antiseptic solution, and the surgeon's hands must be most carefully prepared before he touches the case.

Dr. Woodward, of Bellevue Hospital, who treats burns scientifically, tells me that he has seen two cases in which the bichloride of mercury wash caused a great deal of pain, and on account of his experience I have suggested the salicylic and boracic acid combination which is commonly used, in the place of the bichloride of mercury. In my own cases I have never seen any disagreeable result from the employment of the latter.

In another class of cases, where a very large surface of the body has been burned to the second degree, we shall often find it impossible to apply the thoroughly antiseptic dressing which has just been described, and the subnitrate of bismuth treatment, which stands next in value, should be applied as follows: 1. Anæsthetize the patient with chloroform. 2. Remove all clothing, and whatever may adhere to the burned surfaces. 3. Wash all of the injured area with an antiseptic solution. 4. Pull away all loose cuticle, and as fast as it is removed sprinkle the parts beneath thickly with subnitrate of bismuth. 5. Cover lightly with a single layer of soft cloth or sheet-lint. 6. Remove the cloth covering once or twice daily, and wherever any of the subnitrate of bismuth has been loosened by the discharge sprinkle more of the powder on the place. 7. During the period of depression and congestion, sustain the heart and relieve the shock of the nervous system by the use of hypodermic injections of morphine. 8. During the period of inflammation, support the heart and aid the inflamed kidneys with digitalis. Quiet the disturbed stomach with belladonna, and give refreshment in the shape of acid drinks. Feed the patient by the rectum, and use peptonized milk only for this purpose. 9. During the period of reaction continue feeding by the rectum, and for the first time cause a free movement from the bowels, using a saline cathartic. 10. When reaction is well established, commence to stimulate the patient with sherry wine, and gradually coax the stomach to bear light, varied diet.

In a very extensive burn there will very likely be considerable dermatitis in the vicinity of the burned portions of skin, but this is a matter of no significance and will pass away in a short time. The discharge from the burns will be so small in quantity that it is very easy to keep the entire injured surface covered with subnitrate of bismuth, and the neatness of this method of treatment will make the nurse your friend.

I have recently treated a case of burns of the second degree, where considerably more than one-third of the body was involved. The head, trunk, legs, and arms were denuded of cuticle in large patches, and the patient suffered from delirium tremens for a week. This patient recovered completely, with hardly a scar, and at no time during his confinement in the hospital was there enough discharge to cause any odor in the ward, or to call for any dressing for the reception of the discharge from his wounds.

In this connection it may be well to state that I had five burn cases in one ward at one time, and all of them

were very severe. The patients were burned to the second, third, and fourth degrees, but so little odor was given off that no one would have suspected that there was a single case of the sort in the ward.

When we have to deal with a burn of the third degree, in which the true skin is destroyed through a part of its thickness, the following course is the best one to be pursued: 1. If the burn is small, including a few square inches only, apply the antiseptic dressing which is used for limited burns of the second degree. 2. Do not remove the dressings until the end of the third week, and then if the slough has not been absorbed pull it away and irrigate the granulating surface with an antiseptic fluid. 3. Hurry the reparative processes by doing a plastic operation or by skin-grafting; and when the latter is to be done, graft according to the following directions: Shave and scrub with an antiseptic solution any portion of healthy skin which you may choose. Raise small pieces of cuticle from the cleansed skin, on the point of a needle, and cut them away with a sharp scalpel. Place these severed pieces of cuticle near the margins of the granulating surfaces. Carefully lay a piece of antiseptically prepared protective oiled silk over the grafted area. Over the protective place eight or ten layers of sheet lint, which have been wrung out in a saturated solution of boracic acid. Cover all with a piece of gutta-percha tissue or any other waterproof material. Change the dressing on the third or fourth day, and after washing the granulating surface gently with a warm saturated boracic acid solution, add more grafts and dress as before. If no attempt is made to improve upon this method of grafting almost every little piece of cuticle will "catch."

When we have extensive burns of the third degree they are almost invariably found to be associated with burns of the second degree, and it will be best to combine two of our methods of dressing. At first apply the same dressing which we should apply in limited burns of the second degree, and allow it to remain undisturbed until a odor of beginning decomposition is noticed. This odor will first appear about the twelfth day, and calls for immediate attention. A serous discharge may make its way through the dressings before we wish to change them, but by sprinkling iodoform over the moist place and by bandaging on an additional wad of borated cotton, or sublimated gauze, or a peat bag, we can shut off the entrance of spores which would cause early decomposition.

When it becomes necessary to change the dressing, remove everything under antiseptic irrigation and sprinkle the granulating surface thickly with subnitrate of bismuth. Where sloughs remain attached rub them full of iodoform and subnitrate of bismuth, and then allow the whole wound to dry; a single layer of sheet lint being all that is required for extra covering. The sloughs will soon become of a horny consistence and they may be trimmed off from time to time. Bismuth should be sprinkled over the exposed surface beneath as fast as the sloughs are removed. Do plastic operations or grafting early and give the patient stimulating diet.

Burns of the fourth degree in which the true skin is entirely destroyed should be treated by the dry method from the very first: 1. Rub the burned surface full of subnitrate of bismuth and iodoform, and continue doing this as long as any moisture remains. 2. Cover with a single layer of soft cloth or sheet lint. 3. When the dead skin has become dry and hard, and begins to slough away, aid the separation by trimming with scissors, and complete the case as if it were one of the third degree.

Burns of the fifth and sixth degrees do not call for attention in this article.

In closing, I should like to suggest that burns be classified among the wounds, so that instead of five varieties of wounds we shall have six: namely—contused, lacerated, incised, punctured, poisoned, and burned.

HYPERÆSTHESIC BRAINS.

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THE following physiological principle so pervades the rest of this article that I prefer to begin with its statement.

Action in any of the organs or structures of the body always occasions metamorphosis of structure—disintegration of structure. In natural, functional action the metamorphosis is a disintegration that the structure has the faculty of reintegrating promptly from the nutritive fluids in contact with it. How this faculty has been obtained or acquired it is not in the province of this paper to discuss, but it accepts the proposition that this is an established fact. To repeat: functional action disintegrates, but because it is functional or an established mode of procedure, the disintegration is readily reintegrated from the pabulum. This process we call nutrition.

All nerve-centres have awakened, produced in them by the currents of afferent action, coming into them from the periphery, certain *receptive* actions; and further, these centres have the faculty of *emitting* outgoing currents of action *adjusted* by them to the incoming currents.

These *receptive*, *adjusting*, and *emissive* actions are common to *all* nerve-centres, but like the centres they vary in *grade* according to the variety, the kind, or complexity of the adjustment required.

The highest grade of receptive action in the body is that of *sensation*, which high grade of functional action is the faculty only of a proportionally high grade of structure, namely, the high brain; and here it is principally confined to the cortices of the hemispheres. There is probably no definite line of demarcation in the nervous system between those actions that are sensitive and those not sensitive. The gradation is uniform. The hemispheres have the highest grade of this function—sensation—peculiarly their own. The difference is altogether one of grade.

In the high brain functional action makes metamorphosis of structure, which disintegrating, changing action, makes, constitutes, is sensation. The high brain has this faculty—how obtained we don't discuss. The normal, functional, receptive action here as elsewhere in the body is a disintegration that can be reintegrated from the nutritive fluid. To be functional the action has to be the established mode of procedure that disintegrates only in the mode or way that can be reintegrated.

In the high brain not only the receptive actions produce this sort of high grade of metamorphosis called sensation, but *all* the actions of the sensorium disintegrate in this way, and, to extend the same idea of the term further, are sensated. The metamorphosis produced in this high structure by *all its* actions constitutes consciousness, a broader term than sensation, which is usually confined to the receptive actions.

The term sensation is *usually* limited to the receptive acts produced by the currents incoming from the sense organs. Further, we can say there are higher grades still of reception than the action awakened in the sensorium by afferent action simply produced in the sense organs by external action. We have means of intercommunication between individuals by which are transferred, through the sense organs and the sense organs only, through the channels of afferent fibrils, by means of written or spoken language, intellectual perceptions which we may say are receptions, or transfers, of the brain acts (thoughts) in this way from one individual to another. The necessity of the transfer always is that the second individual has to be *capable of performing* the act himself, else he cannot perceive it or perform it. I digress to mention this higher grade of reception, intellectual perception, which we have not time to discuss.

All the actions of the sensating brain—the receptive, the adjusting, and the emissive efforts—are sensated. The organ has a sense, a metamorphic capacity of change

called sense, of *all* its actions, which constitutes consciousness. How this high faculty is obtained we don't discuss. The sensorium is the *ego*.

With this sort of an understanding of the sensating functions of the high brain, we can probably arrive at some better idea of what its abnormal sensations are.

The Greek word αισθησις means sensation or feeling; by prefixing to it the different prepositions, ὑπέρ, over or above; ὑπό, under; παρα, alongside of; and α or αν, privative, we obtain several derivative words that designate varieties of sensation.

Paræsthesia designates a condition of brain in which the faculty of sensation is normal; *hyperæsthesia* designates a condition that is *over*-sensitive; *hypoæsthesia*, one that is under-sensitive, dull of sensation; and *anæsthesia*, a condition where the functional faculty of sensation is lost.

A paræsthesic brain is one normally sensitive; a hyperæsthesic brain is one over-sensitive; hypoæsthesic is dull of sensation, and an anæsthesic brain has lost the faculty of sensation.

In a paræsthesic, normally sensating brain the incoming currents of action, in producing sensation (and *from* it adjustment and emission), disintegrate to such a degree that the reintegration is readily done. The "tone" of action is good, prompt, and efficient.

In a hyperæsthesic brain the disintegrating metamorphosis is in a structure too easily disintegrated, too sensitive. The reintegration is for the same reason less prompt —there is less "tone" of action.

In a hypoæsthesic brain there is less functional action for some reason, less disintegration, less sensation.

In an anæsthesic brain there is a loss of functional action, no disintegration (functional), no sensation. It has always to be functional (accustomed) disintegration to be sensation, of the kind that can be functionally reintegrated.

Here, I think, we might venture on a definition of *pain*—that it is excessive functional disintegration of the sensorium. An excessive, abnormal disintegrating metamorphosis, from some cause or other, going on in the peripheral tissues at the distal extremity of an afferent nerve, produces similar disintegrating action in its axis cylinder, and is transmitted to the high grade of sensating brain structure and produces excessive disintegrating metamorphosis there; which *kind of action* constitutes what we call *pain*.

A great deal has been written of late years on the "nervousness" of the day. A number of names have been suggested to designate the condition. We hear a great deal said about the great prevalence and extent of such troubles and about their proportional increase of late years. There are said to be in our day and generation a large number and an increasing number of persons (of brains) to whom I prefer to give the generic name of *hyperæsthesics*. I prefer hyperæsthesia to neurasthenia as better designating the true condition. Such brains, in fact, and *per se*, are over-sensitive, are painfully sensitive.

The incoming afferent currents of nerve-action that reach them, which they ought to be capable of *receiving* and *adjusting* without discomfort or pain, without excessive disintegration, they are incapable of so receiving. Physiologically speaking, the receptive acts are ahead of the adjusting and the emitting ones. Anatomically and physiologically, adjustment and emission are built up upon and are the results of reception; so that when the receptive faculty is defective or faulty we have defective and faulty emissive acts. Objectively considered, we are only acquainted with the emitted acts of the brains of other persons, and because we have been thus in the habit of only considering these actions objectively, the terms nervousness and neurasthenia have been used to designate only the external exhibitions of a condition of the nervous system or the brain; they are usually used to include only its emitted acts. The receptive function is prior to all, and physiologically considered is first at fault; the rest come as resultants from it. This is the rule—there may be exceptions.

The condition usually known as neurasthenia, or popularly as nervousness, is therefore, more properly speaking, hyperæsthesia. Hyperæsthesia is a term more properly designating the physiology of the condition in the majority of cases.

My own observation leads me to confirm the statement made by the highest authorities that this is a largely prevalent deficiency or defect in brain function, and that it is on the increase. Statistics seem to show that the graver forms of brain failure exhibited in the multiform varieties of insanity and idiocy are on the increase. I think if we could have means of detecting and recording the milder forms as readily as the graver, they would even show a larger proportional increase. This seems to be a very general opinion among neurologists.

I propose to consider briefly some of the causes of this very general trouble. How prevalent it is, and how much (if any) on the increase, we can leave for further observation. I think, from the standpoint I have taken, we can discuss it more intelligibly and scientifically than in any other way.

First.—Among the *causes* of *acquired* hyperæsthesia I mention *continued pain or worry*. A paræsthesic brain, normally proficient in its action, has a receptive faculty which, as a result of exercise and practice, individual and ancestral, is accurately, properly sensitive. Its proficiency, its perfectness, is shown thereby. Accurate, proper, acute sensation is not hyperæsthesia. When from any cause the structures in the periphery are abnormally disintegrated, and disintegrating action is transmitted to the sensating brain, producing pain, if the adjustment cannot promptly be made to correct or remove the cause, there necessarily results a disturbed condition of brain called "painful," "worried," "excited," "tortured," and the like, which conditions are always disintegrating; and hyperæsthesia results. A "happy" state of brain exists when all the internal and external conditions of action are equilibrated. Evidently, then, a paræsthesic normal brain much more readily and efficiently adjusts to external or internal disturbances than an hyperæsthesic, but the circumstances can be so excessive of internal (painful) or external (worrying) disturbances, that no matter how paræsthesic the brain may be, it will be unable to promptly adjust to them, when as a sequence it will become hyperæsthesic; but, we can add, because of the same original proficiency or "tone" of action belonging to it in the first place, on the removal of the disturbance it will return promptly to the normal. In this connection I may set it down as a distinguishing characteristic or mark of a paræsthesic brain not to be easily pained or worried, and of a hyperæsthesic brain to be easily pained or worried.

Second.—A cause of acquired hyperæsthesia can be *over-brain-work*. Brain-tire or fatigue means hyperæsthesia. Exercise up to capacity makes development, *i.e.*, up to the point of the disintegration not exceeding the reintegrating capacity. During enfeebled conditions of system, to attempt to make the enfeebled brain work up to even its usual capacity does harm. The sick man ought not to do brain-work any more than other body-work beyond easy capacity. When respected, the sensations are a good guide to go by. The necessity of the case for an enfeebled man to keep up his usual or any unusual brain-work will always injure his brain, in the same way that it would other structures. "The effort sense" of all brain-work is the guide. In excess of work or action this "effort sense" of all the brain acts is painful, and means a hyperæsthesic condition. Fatigue is this.

Third.—The constant use of *hypoæsthetic drugs* produce the condition of acquired hyperæsthesia. I prefer the term hypoæsthetic to designate these drugs. The terms anodyne and anæsthetic denote a deeper degree of the

effect of these agents than is usually sought after or obtained. Hypoæsthetic is a better term.

Hypoæsthesia of the sensorium is, so far as immediate consciousness goes, a pleasant condition, even if produced artificially. The brain is "happy" when in a condition of rest ("oblivious," "insensible" to), not affected by incoming currents of action needing adjustment. In a normal brain, one paræsthesic, as the condition of perfect adjustment is approached (we may say it is never perfectly obtained) there is the consciousness (the all-over sense) of equilibrated security. There is a "happy state of equilibrium." Even if this condition is obtained by the use of a drug it is pleasant.

The exceedingly delicate colloidal matter of the high sensorium is peculiarly open to contact and to the effect of hypoæsthetic or anæsthetic drugs. Taken into the circulation they do not so easily "hydrate," "coagulate," "harden," "densify," "paralyze" the cellular structures of lower orders in the body, nor even so easily the lower grades of nerve-centres, but the sensorium is peculiarly exposed and susceptible to these effects.

There is a long list of such medicines in our materia medica, and because sensations play such a part in "the complaints" of men they are in most frequent and ready use—much too frequent and too ready use. Small doses, small amounts, taken into the circulation produce degrees of hypoæsthesia; while large doses produce an entire arrest of functional disintegration, or sensation, called anæsthesia. The one is an abated, a slightly cessated condition of functional action; the other is a complete cessation.

Whether the true *modus operandi* is described by their "hardening," "coagulating," "astringing" action or not, the evident effect of all such agents upon these structures, as evidenced by the sequels of their constant or excessive use, is *injurious*, "*traumatic*." By their union with these delicate structures they tend to disintegrate, not functionally, but chemically, physically, and after their hypoæsthetic effect is passed off a paræsthesic brain is made more or less hyperæsthesic, and one hyperæsthesic is made more so.

A number of such drugs are in very common and general use among men, and their consumption is increasing. For instance, to obtain the hypoæsthetic pleasure produced by them, men consume immense and yearly increasing quantities of tobacco and alcohol, to say nothing of a number of other such drugs. To consider the quantities of these two drugs alone used in this day and generation affords a ready explanation for a large proportion of the hyperæsthesics found and complained of in modern civilized society. By the frequent use of either of these agents a person originally paræsthesic can render his sensorium so hyperæsthesic that unless his hyperæsthesia is constantly overcome by the "hardening" effect of the drug, he is uncomfortable. Even using such a drug as tobacco, which is much less toxic than opium or alcohol, there is kept up a constant hyperæsthesia unless the brain is kept constantly hypoæsthetized by it. If we leave off the introduction of the drug for a while, until the brain-structure has time to rid itself of its union and contact, we at once find the real condition is one of hyperæsthesia. The sensorium is over-sensitive. It is pained with receptive acts to which it ought to be fully capacitated, and even the effort sense of all its brain-work is painful. Unless "hardened" by the drug, it is irritated, worried, pained, easily fatigued.

I am perfectly willing to admit the remedial value of such drugs when needed and when judiciously administered.

I have shown that pain or worry is injurious, and the fatigue of excessive work is also injurious; both mean excessive disintegration. To remove the cause of the pain or the worry or stop the excessive work is the indication for treatment, and ought *always* to be done when it is possible. Sometimes this indication for treatment cannot be followed when to harden the structure, or in whatever way you suppose it is done to hypoæsthetize the sensorium, is the indication; it may be necessary even to anæsthetize it. You can in this way prevent the injury of the excessive disintegration of the pain and the worry, or even the fatigue; but you are dealing with a two-edged tool. The traumatic effect of the drug should always be remembered, and its administration dropped as soon as possible. Its sequelæ can be less than the other at times, but the fact that it has sequelæ should not be forgotten.

I am not decrying or denouncing the judicious administration of these drugs as medicines, as indicated above, but am declaring that their constant and indiscriminate use, simply for the pleasure of their hypoæsthetic effect, by a large number of persons, is attended with widespread and broadcast harm. Hyperæsthesia is a sure sequel to be acquired by this abuse of their use as luxuries. The ignorant are always led by immediate pleasurable sensations, without knowledge of their sequences, or of accumulated wisdom of others. It is time, I think, some instruction should be given on this point. There is a vast amount of ignorance as to the sequelæ of such conduct.

I have been speaking heretofore of acquired hyperæsthesia. There is a large proportion of the hyperæsthesia of the day *transmitted* or *inherited*.

Under the laws of heredity, nothing seems more positive than that "like begets like." Particularly this seems the case with reference to brain capacities and incapacities. A hyperæsthesic is liable to transmit hyperæsthesia. I think a little observation will confirm this statement. The parent ordinarily or usually paræsthesic is liable, during a period of acquired hyperæsthesia from which he may recover himself, to transmit a permanently hyperæsthesic brain to his offspring. For instance, the hyperæsthesia acquired during a period of pain, or of worry, or of overwork, or by the use of a hypoæsthetic drug, is liable, through a temporary condition in the parent, to be transmitted as a permanent state to his child. When both parents are hyperæsthesics the liability is very strong. I think very cursory observation will show all this.

When, as is a frequent occurrence, the one parent, the mother, is a "worried" hyperæsthesic, and the other, the father, a hyperæsthesic from the use of hypoæsthetic drugs, the combination is a very dangerous one for the offspring; and simple hyperæsthesia is not always the transmitted defect, but more serious conditions, exhibited by all the phases of idiosyncrasy, crankiness, insanity, idiocy, which are defects not of sensations alone, but of capacity for adjustment.

Why there should be any increase of the proportion of hyperæsthesics in the present day or generation I don't think is explainable satisfactorily by the statement that there is more pain, more worry, or more overwork today in the world than there have always been. That this more civilized generation has reason or cause to be pained more, worked more, or worried more than the preceding I think is very doubtful, since the very object of the "struggle that civilizes" is to rid individuals of these causes of distress. If there is any increase, I think the abuse of the use of hypoæsthetic drugs, as luxuries, so largely prevalent will come in as a principal item in the reckoning to account for it.

If I have properly drawn attention to that condition of brain I designate as hyperæsthesia, and if I have properly pointed to the causes of this very prevalent condition, my object in writing this article is accomplished.

A New Method in Adherent Placenta.—Dr. J. Feld, of Kansas City, reports in *The Clinique* that in six cases of adherent placenta he has saved the woman by pumping cold water through the umbilical cord. In one case the patient was in convulsions when the after-birth came away.

LEPROSY IN THE VIRGIN ISLANDS.

By B. BONN, M.D.,

ACTING MEDICAL OFFICER OF THE VIRGIN ISLANDS, ROODTOWN, TORTOLA, B. W. I.

THE following cases have occurred in my practice here:

CASE I.—*Tubercular leprosy.*—William H——, aged thirty-nine years, colored, born in the West Indies, fisherman, lives at Virgin Gorda, Virgin Islands, W. I.

Family history.—His father, a Cornish man, went to Virgin Gorda to work the mines. He died of bronchitis at an advanced age at this place. William's mother was a native of Virgin Gorda. She died of consumption. Her sister, aged seventy years, has survived her, and is free from all skin affections. William's sister, a healthy woman of thirty-seven years, takes care of him.

Previous history.—When William was fifteen years old he spent two months at St. James, a small island in the Virgin group. On this island there lived a boy who had tubercular leprosy, in the early stage of ulceration. These two lads had free intercourse with each other, went out in the same fishing-boat, and, it is said, slept in the same bed. This was the only leper with whom William ever came in contact. He has always lived at Virgin Gorda, making occasional trips to St. Thomas, W. I., where he never remained longer than two days. He acknowledges having had gonorrhœa many years ago, but denies syphilis.

Present condition.—Seven years ago the disease first manifested itself. He had the usual constitutional symptoms, followed by spots and tubercles on the face, ears, and hands. Next his fingers and toes swelled. At present his face is covered with numerous tubercles. The superciliary ridge is swollen, the forehead is deeply furrowed, the eyebrows and cilia are entirely absent; the lobes of his ears are very much enlarged; the lobe and alæ nasi are the seat of large tubercles. Smaller tubercles, some ulcerated, are scattered on the uvula, pharynx, fauces, and mouth. His voice is hoarse, and his beard is falling off. He presents a hideous appearance. The distal phalanges of his fingers and toes are ulcerating. Large blebs form on the soles of his feet. These are very painful, but cease to be so after rupturing and emptying their contents. His trunk is entirely free of skin lesions. He says that some time ago he had intermittent fever, for which he was successfully treated. The disease is steadily progressive. His general health is pretty fair.

Before the disease was well marked he occupied a room in his aunt's house, but since then has had a small hut to himself. His personal habits are cleanly; diet is principally vegetable, with fresh and salted fish occasionally.

CASE II.—*Anæsthetic leprosy.*—John Malloon, aged thirty-four years, negro, born in Tortola, V. I., where he still lives, farm laborer.

Family history.—His mother is alive and in perfect health. She says that there was never any leprosy in her family. Her husband, who died of cholera asiatica in 1867, was not a leper; but it is not known whether leprosy existed in his family.

Previous history.—John was suckled in the absence of his mother by a woman who subsequently died of leprosy. This woman had a son who was also a leper. John spent some period of his boyhood on an estate, at the west end of this island, where three lepers lived. With these he associated without restraint, often sleeping in places where they slept, etc. Eleven years ago the disease first appeared and has been continuous. He admits excessive venery, but denies ever having had syphilis.

Present condition.—The first skin lesions were on the internal aspect of the right foot. These were bullæ, which ruptured, dried up, and formed anæsthetic spots. After a while large ulcers formed on these spots. The great toe of this foot is entirely absent, and the remaining toes are swollen and present the appearance of claws. Not long after the left foot was similarly affected. The phalanges of the toes of this foot sphacelated. His hands are mutilated, but his face is intact. Locomotion is very awkwardly performed. General health is good. He lives together with his mother and four other persons in a small hut, using everything in common except bedding. Their personal habits are nasty; dietary is like that of Case I.

CASE III.—*Anæsthetic leprosy.*—Anne M——, twenty-one years of age, negress, born in St. Thomas, single (has a child), lives at Kingston, Tortola, V. I.

Family history.—Abraham D—— married Susan J——. They were, together with many others, captured by a British man-of-war from a slaveship, brought to this island, where they settled. In course of time Susan bore her husband, who was a faithful mate, four children. After the birth of these Abraham manifested symptoms of tubercular leprosy, of which he died many years after. Nothing is known of his parents, but his widow, who is alive and well, enjoying a good old age, attributes the cause to exposure to very inclement weather whilst doing prolonged guard-duty. Two children were born to them after Abraham became a leper. One of these, a boy, died of some internal injuries sustained by a fall at the age of eleven. At the time of his death he had no skin disease of any kind. The other, a girl, grew to womanhood, got married, and gave birth to Anne M——. When Anne was a nursling her mother died of cholera asiatica, at the age of thirty. She, too, was not a leper. Anne's father was of a leprous family, but nothing is known of his health.

Previous history.—Anne was two years old, and her grandfather was many years dead, when it was noticed that she was getting leprosy. I have been unable to ascertain the manner of its invasion. However, in a year's time the disease was well pronounced. She was then removed to Kingston. She menstruated at the age of fourteen, and continued to menstruate regularly until four years ago, when she became pregnant. She gave birth to a healthy child at full term. This child is alive and well. After weaning the baby, her menses reappeared and continued until eight months ago, when she became pregnant from another man.

Present condition.—Her hands and feet are mutilated. Maculæ are scattered over her back and posterior parts of legs. No skin lesions on the face whatever. General health is very good. The disease has been stationary for some years.

Her first paramour, a middle-aged man, is free from all skin affections. The present, a youth of eighteen, is absent from this island.

Kingston, where Anne lives, is a small fishing village of 127 inhabitants. It is a malarial locality. Anne has lived for the last eighteen years with her grandmother and two aunts. They occupy the same wretched hut, situated but a few feet from a swamp. Their personal habits are filthy in the extreme, they rarely wash their persons, and they seldom change their garments. They eat the same food, using the household utensils in common. Their dietary consists for the most part of sweet potatoes and peas, fresh and corned fish, and goat mutton sometimes. Very seldom do they eat wheat bread.

Anne is the only leper in this village. She has never been isolated.

Remarks.—The main points of interest in these cases are: 1, that the disease in Cases I. and II. can be traced to contagion or infection alone; 2, that it was hereditary and developed at a very early age in Case III.; 3, that it did not prevent her development to maturity, as is usual when the disease is manifested prior to puberty; 4, and that, although the families and friends of Cases II. and III. have had unrestrained intercourse with them for many years, yet none of them have contracted leprosy; 5, and finally, that there is no history of syphilis in any of these cases.

There are six cases of tubercular and anæsthetic leprosy in these islands, which have a mixed population of

six thousand persons. At no time in the history of this colony were any means taken to arrest or eradicate (by isolation or segregation) leprosy, which existed to a great extent in former years. Although it existed under the most favorable circumstances for propagation, yet it is on the decrease. Perhaps this can be accounted for, in part, by emigration.

It will be observed that no mention is made of any treatment. These poor wretches believe their condition beyond human aid, therefore they seldom or never seek medical treatment. Alms are all they crave for.

Progress of Medical Science.

THE TREATMENT OF PHTHISIS.—Dr. Kurz, of Florence, Italy, speaks in the following terms of phthisis: "The hypothesis of the bacillary origin of tuberculosis and phthisis has nothing to do with its treatment, the anti-bacillary treatment having entirely failed. It is furthermore not proved that a healthy person living in normal circumstances will be infected by a tuberculous person, and in hospitals the phthisical are not in separate wards, as in other infectious diseases. If the bacillus Kochii needs for its development so many different conditions to affect the lungs into which it easily enters, it must be a bacillus quite different from all the others, which develop in a short time and destroy the life. In the miliary tubercles of the peritoneum the bacillus has not been found. Lately arsenic has been recommended in the treatment of phthisis 'to break up the bacilli,' and one scientist has exactly described the way in which this is done in the body. But arsenic has been given in tuberculosis in Italy for hundreds of years, and its action has been long known, *i.e.*, by improving the breathing and nourishing the nervous and muscular tissue. Milk diet has been recommended for a long time, and it has to be applied in the future, whatever the bacillus may do. Iodoform has had a good effect in some cases, but most patients could not stand the smell of the iodoform, and inhalations with it are a torture for patient and physician. In some cases of laryngitis and ulcers of the larynx, the powdered deodorized iodoform may be applied with good results, but only so far as it induces the lungs to gymnastic action. In hemorrhage the best remedy is ergot in large doses. Against the fever, quinine is the remedy *par excellence*, salicylic acid producing other complications. In some cases where the fever was produced by resorption of pus, inhalation of carbolic acid acted promptly. Kairine was always followed by aggravated symptoms. It is not always commendable to reduce the temperature of the patient, there being certain conditions where a reduced temperature aggravates the other symptoms. The cough is treated with morphine and apomorphine, each 0.05 in 150.0 water. Oil of turpentine, carbolic acid, kreosote, and eucalyptus, used as inhalations, are in some cases of beneficial effect. The best inhaler is Oertel's, which works at a distance of two feet from the patient. Forced nutrition by the (stomach sound) œsophageal tubes is very seldom applicable. The night-sweat is readily reduced by the old forgotten remedy, agaricus albus, in doses of 0.5 to 1.0. The disease is a social evil, and it will not be reduced by microscopical or chemical examinations."—*Chicago Med. Jour. and Exam.*, March, 1884.

REFLEX UTERINE VOMITING.—According to the experience of Dr. Graily Hewitt (London *Lancet*, January 5, 1884), reflex uterine vomiting, when of an obstinate character, is very frequently associated with great weakness and want of tonicity of the uterus, and a flexed condition of the organ is almost invariably also present. There are, undoubtedly, cases of reflex uterine vomiting in which the cause is a different one, but they are exceptional and occur rarely. The unduly soft uterus readily bends, and any temporary increase in the degree of the flexion is attended with aggravation of the reflex disturbance—viz., the vomiting. The several factors concerned in the production of this grave disorder may be enumerated as follows: 1. A general enfeeblement of the body, the result of a low condition of the nutritive process in which the uterus participates. 2. The physical weakness and pliability with which the uterus is consequently affected. 3. The flexed condition of the uterus, liable to be intensified by certain movements or positions of the patient. The sickness and vomiting appear to result from the irritation of the uterine nerves consequent on the temporary or permanent compression of the uterine tissues. It is almost certainly relieved, or for the time at all events removed, by measures having for their object the maintenance of the uterus in a normal position and shape.

There is no doubt that many cases of this affection escape true recognition, the sickness being erroneously attributed to the liver or the stomach being the seat of disease. Many cases of so-called "bilious" vomiting, and not a few supposed of gastric ulcer, turn out on investigation to be cases of uterine vomiting pure and simple. As regards the liver and the stomach, it will be found possible to exclude these organs as causes of the vomiting from the fact that apart from the vomiting there is no symptom indicative of disease of the organs in question; while, on the other hand, there are generally marked symptoms indicating that the uterine functions are disturbed. One symptom specially indicative of the uterus as the cause of the sickness is the exaggeration of the sickness, which is liable to occur when the patient moves, or walks, or exercises herself. It must be added, also, that in cases of reflex uterine vomiting, where the malady has been of long continuance, the stomach itself is liable to become affected. The secreting power of the stomach is enfeebled by the long-continued starvation; and it is no longer capable of producing gastric juice to any amount, which adds another factor to the pathology of such cases. Hence a quasi-paralysis of the gastric mucous membrane results. There are cases of this kind in which the extremest care is necessary to prevent a fatal issue, even after the tendency to vomit has been obviated or diminished by appropriate treatment.

CASE OF POISONING FROM THE BITE OF A COPPERHEAD.—Dr. H. C. Yarrow reports, in the April number of *The American Journal of the Medical Sciences*, a case of very severe poisoning from the bite of a copperhead, which was successfully treated. He reviews recent investigations concerning the effects of serpent venom, and points out the means and remedies to be employed in cases of snake-bite, and he recommends, as a chemical antidote, the injection in the immediate vicinity of the bite of a one per cent. solution of permanganate of potassa.

PHOSPHORUS IN DIABETES.—Dr. Travignot (*Le Progrès Médical*) claims good results from the use of phosphorus in the treatment of diabetes. He has employed it several times with patients who had been treated previously by alkalies and diet with temporary benefit. Ordinary food was allowed, and under the influence of phosphorus alone the general health improved and the quantity of sugar in the urine diminished gradually. The drug can probably be taken for a long time without danger. The best preparation is oleum phosphoratum in capsules; one milligramme (one-sixtieth of a grain) of phosphorus can be given two to six times daily with the food. Dr. Travignot recommends also a combination of oleum phosphoratum and ferri carbonas, made into pills with pulvis altheæ and oleum theobromæ.

AN AMERICAN THE FIRST TO EMPLOY ESTLANDER'S OPERATION.—Dr. G. N. Monette writes to the *Journal of the American Medical Association* that Dr. Warren Stone advocated and employed thoracoplasty more than thirty years ago.

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THE CAUSATION OF NERVOUS DISEASES.

WHILE the symptoms and lesions of the so-called "system diseases" of the spinal cord have been carefully studied, but little light has been thrown upon their etiology. Why an inflammatory process, acute or chronic, should extend longitudinally through the organ for several inches, but fail to involve cells or fibres lying in close proximity to it on all sides, has received no explanation. In 1881, Adamkiewicz discovered that the various capillary vessels lying in and supplying with nutriment the various tracts in the cord, and the various segments of its gray matter, were connected with different branches of the spinal arteries, so that a disease of one branch would affect but one tract, and not all parts of the cord indefinitely. His attempt to bring this fact into a causal relation with the system diseases was, however, unsuccessful; for it only carried the question a step farther back, and failed to explain why certain arteries, to the exclusion of others, were affected in certain diseases. Professor Strümpell, of Leipsig, in an inaugural address on taking the chair of Practice of Medicine at the Policlinic, quite recently, has made a valuable contribution to this subject. His opinion is worthy of careful attention, as he is not only a well-known scientific worker and a man of very wide experience, but also the author of a work on Practice which is superseding that of Niemeyer throughout Germany. Admitting that anatomical structure furnishes no explanation for the existence of system diseases, Strümpell seeks their cause in physiological, embryological, or toxicological facts.

Any voluntary effort calls into play certain definite centres and tracts which are distinct from all others, not on account of their structure, but because together they form a physiological unit. All physiological action is accompanied by chemical change in the parts which act. If that action is excessive the chemical changes may pass the line of safety and go on to pathological changes. Such changes will be limited, however, to the parts which form the physiological unit; or, in other words will affect one system alone. There are numerous examples of diseases thus caused by overaction of a part. Writers' cramp and other occupation neuroses are examples of overstrain producing temporary inability without known lesion. Strümpell would also assign to this cause progressive muscular atrophy, bulbar paralysis, and amyotrophic lateral sclerosis, all of which are known to follow severe exertion, and to present definite pathological changes limited to the *motor system* in the gray matter or white tracts.

The researches of Hechsig have demonstrated that various tracts in the cord develop at various periods in the embryo, and that each system has its own time of obtaining its medullary sheath. This fact Strümpell brings into connection with two forms of system disease, both of which appear early in life, and both of which may be ascribed to a failure in the normal process of development; viz., the hereditary form of locomotor ataxia described first by Friedreich, and the congenital pseudo-hypertrophic paralysis recently investigated by Erb.

External agents manifesting a power of specific action upon certain parts of the nervous system form the third great cause of system diseases. These agents may be inorganic or organic. It is well known that strychnine excites the reflex centres, atropine the secretory centres, morphine the sensory tracts, conium the motor nerve terminations, etc. A selective action of poisons is therefore proven to exist. Strümpell cites lead and mercury as inorganic agents possessing a specific action upon the motor system of the spinal cord, and assigns lead palsy and mercurial tremor a place among the group of system diseases. But organic agents also show a selective action upon the nervous system. An epidemic of ergot poisoning occurred in Marburg not long ago. Those who were affected presented symptoms which resembled almost exactly the symptoms of locomotor ataxia, and the post-mortem examination demonstrated sclerosis limited to the posterior columns of the cord in all cases. In Northern Italy the peasants mix lathyrus beans with corn when food is scarce. The result is a peculiar form of poisoning, in which all the symptoms of spastic paraplegia develop and a lesion of the lateral columns of the cord is found. These facts seem to Strümpell to prove that organic agents, germs, may cause nervous diseases of a systemic character. Following this line, he seeks to show that the connection between syphilis and locomotor ataxia may be due to a selective action of the syphilitic germ upon the posterior columns of the spinal cord. But if this is doubtful, there are numerous nervous diseases whose course and termination demonstrate a germ origin. Cerebro-spinal meningitis is infectious; hydrophobia is contagious; tetanus is best explained by the entrance of some external organic agent into a wound; trigeminal neuralgia is most frequently malarial in its origin, and is only affected by anti-malarial remedies. Further, there is a form of nervous disease, commencing with a chill and acute febrile symptoms, running an acute course for some days, with general constitutional symptoms, enlargement of the spleen, occasional albuminuria, etc.; in a word, presenting for a time all the features common to diseases which are known to be of germ origin. This form of disease is infantile spinal paralysis and its ally, acute infantile encephalitis. In these Strümpell finds examples of a germ disease in which a selective action of the germ upon certain motor-trophic cells is as evident as the selective action of lead upon other motor-trophic cells.

It is evident that under these three divisions, physiological overwork, embryological malformation, and tox-

icological agents, inorganic and organic, Strümpell has succeeded in classifying all the primary system diseases of the cord.

As an original and suggestive effort to explain a hitherto unknown subject his address will command attention. It is possible that his hypotheses will need to be modified as facts collect about them. It is possible that other causes, as well as those which he mentions, may exist. But there are many points of interest in his presentation of the matter, and not the least is the fact that by it neurologists are to be open to the attacks of the whole army of bacteria.

MEDICINE AND TRADE.

It may have been noticed that when the fervent orator of great medical occasions alludes to the future of medical science his language is glowing and confident; but if he touches upon the prospective social, financial, and moral status of the profession, his words are more halting and critical.

Many persons, in their hours of hepatic torpor and (we believe) scotomic vision, see bad auguries for the moral future of the doctor. Their reflections run something like this: "Medicine is rapidly being reduced to the level of a trade. See how every opportunity is taken by the doctor to advertise his claims. Free dispensaries, private hospitals, cheap medical schools, private journals, mineral water endorsements, personal cards distributed *ad libitum*—these are the signs of the commercial spirit which has seized upon the profession. The doctor feels no longer that he is a member of a learned and historic profession; his motto is, 'Business is business.' What first floats through the mind of the surgeon when he sees a tumor? Not the query, Is it a sarcoma? but, Is it a fifty-dollar or a hundred-dollar affair? The physician counts his typhoid fevers, his rheumatisms, his sore-throats, in rustling increments to his annual income.

"Now-a-days the doctor thinks first of his fee, works for it, schemes for it, talks of it, and counts up his daily toil, like the merchant, in the dollars he has charged."

We have heard sentiments like the foregoing expressed by gentlemen whose opinions we respect. Yet we venture to assert with the utmost confidence that these gloomy prognostications are unfounded.

Medicine is not a trade, and it never will or can be practised upon a commercial basis by that better majority who will always give to the profession its character.

The work of the physician is unlike that of any other class. It puts him in peculiar and sensitive relations to his clients and to his colleagues. The doctor can never stand in such relation to his patient as the grocer or the merchant to his customers. The family physicians form the bulk of the profession; they can never advertise with indecency, or become traders to their families, without losing caste and practice. Codes may come and go, associations may formulate resolutions, sever and unite, but the general ethical sense of the profession will be little affected. That depends upon our family practitioners, who will always have to be as good as, or possibly a little better than, those for whom they work.

It is true we are in a mercenary age. But as one looks back through medical history, he will find that things have been much worse. Read Galen's description of his contemporaries; read his own ethical confessions; if he had lived to-day, he would have founded a World's Dispensary. What can one say for the seventeenth century physician, as depicted by Molière, or as criticised by Guy Patin? A hundred years later the great doctors of London would sell their reputation at half-price to the credulous ones who came to them at the coffee-houses; and nothing could be more scandalous than the advice of a learned and representative physician, Dr. Mead, to a young man about to enter the medical profession. They were not saints in those days. There are not many saints now; but on the whole there is no decrease, but rather an increase, of honesty in the profession. Every decade it requires, to become a successful physician, greater learning, to which must be added human knowledge and sympathy. These are not the attributes of quacks.

LITHOLAPAXY IN INDIA.

The *résumé* of the litholapaxy operations given by Desnos in one of the numbers of the *Révue de Chirurgie*, for 1883, showed that of the 590 operations performed up to that time about seventy per cent. had been done outside of the United States, Guyon and Sir Henry Thompson heading the list with 226 and 101 operations respectively. In the *Indian Medical Gazette* for December, 1882, and February, 1883, Surgeon P. J. Freyrer, of the Bengal medical service, reported 20 cases operated on during the year 1882. In the same periodical, for March, 1884, he reports a further series of 57 cases in which litholapaxy was performed in 1883, with only two deaths.

During the year 107 cases of stone came under his observation; six of these were cases of urethral calculus, in which urethrotomy was successfully performed. There were 40 cases in male children under the age of fifteen years, lithotomy being performed in each case, with one death. In the remaining 61 cases, all of which occurred in adult males, save three cases in female children, litholapaxy was attempted, but in four cases it could not be performed. Of the two fatal cases, one died from peritonitis by extension of inflammation from the neck of the bladder. The calculus was impacted at the neck and some force was necessary in order to remove it. In the second fatal case death was due to pyæmia, the result of cystitis supervening on the operation, and caused by the irritation of a large fragment which could not be removed at the first sitting. In commenting upon this case Freyrer urges the advisability of removing everything at the first sitting; saying that an operation prolonged over several sittings involves all the dangers attending the lithotrity operation.

By reference to the table given by Freyrer, it is seen that large calculi were removed from three patients aged eighty-five years, and nine and one-half drachms of a very hard uric acid calculus were removed from a patient aged ninety-six years, the operation lasting one hour. He comments upon the ease with which very old patients stand the operation, stating that they are less liable to urethral fever than young and strong men, and that in his experience the older the patient the greater the prospect of success from litholapaxy as compared with lithotomy.

In one case a new method of diagnosis of stone is indicated by means of the aspirator. In this case, Sir Henry Thompson's sound failed to reveal the presence of the calculus. The aspirator was employed and a distinct click was at once felt during the exhaustion of the water, due to the impact of the stone against the eye of the canula by the force of the outward stream.

Surgeon Freyrer has now performed litholapaxy 79 times, 76 times on the adult male and three times on female children. Among these only *three* deaths have occurred!

Yet these results are by no means phenomenal for litholapaxy. Even from the single standpoint of mortality, to say nothing of the short time which the patients spend in the hospital, litholapaxy should certainly at once supersede other operations for vesical calculus. But how very few cases have been performed outside of Boston and New York! Even in India one surgeon, Freyrer, has performed it oftener than, may we not say, all the surgeons in the Western, Middle, and Southern States!

THE SUCCESS OF NON-RESTRAINT IN THE TREATMENT OF THE INSANE.

In the recent report of the Bloomingdale Insane Asylum, it is stated that no mechanical restraint was applied to the patients during the past year. The non-restraint system has also been followed by Dr. MacDonald, of the Auburn Insane Asylum; and this, with the Kings County Asylum, makes three institutions in this State in which the humane and rational method of treating the insane has been adopted. There is no doubt that in some of the State asylums mechanical restraints are still used, simply because the superintendents are committed against it. And though every year reduces the number of cases restrained, they obstinately refuse to accept the whole system or to acknowledge any indebtedness to those advocating it.

In other States than New York the movement in favor of non-restraint is gaining ground very rapidly. Dr. Bryce, of the Tuscaloosa Asylum, Ala., says that he has almost entirely succeeded in discarding mechanical restraint of every kind. Dr. Richardson, of the Athens (Ohio) Asylum, states that the amount of mechanical restraint in his institution has been "almost absolutely nothing." Mechanical restraint has been almost entirely abandoned also in the Hospital at Norristown, Pa. The same may be said for the Eastern Hospital for the Insane, at Kankakee, Ill., and the Asylum at Danvers, Mass.

The charge has been made that those who have given up mechanical restraint have supplied its place with drugs; but this charge is refuted by the elaborate investigations of the late Dr. Wilbur, who showed that in the insane asylums both of Great Britain and the United States, with non-restraint a less amount of sedative drugs was used.

In fine, the opinions of American asylum superintendents upon the subject of non-restraint and occupation have undergone a surprising change in the last five years.

Dr. Thomas A. McBride has been elected a Professor of Diseases of the Mind and Nervous System in the New York Polyclinic.

News of the Week.

"The Planet."—The publication of the *Planet* has been discontinued. During its short life it fulfilled its purpose, being especially distinguished for its original, racy, and amusing reports of our New York medical societies. We are requested to ask that its exchanges be stopped.

A Ball from the Brain.—On Thursday, May 22d, at three o'clock, Dr. W. F. Fluhrer will exhibit at Bellevue Hospital (amphitheatre) the patient from whom he removed a ball from the brain through a counter-opening in the skull.

The New York Cancer Hospital.—An error appeared in our last issue, whereby the donation of Mr. John Jacob Astor of $200,000 to the above hospital was assigned to another institution, together with other large contributions, which now aggregate the sum of $375,000. A site for the New York Cancer Hospital has been purchased on Eighth Avenue, between 105th and 106th Streets, facing the park. Ground has been broken, and the corner-stone will be laid, with appropriate ceremonies, on Saturday, May 17th.

Dr. Thomas H. Skinner, formerly of the Bellevue Hospital medical staff, died suddenly in Hartford, where he had gone for medical treatment, on May 10th, at the age of thirty-two years. Dr. Skinner was born in Raleigh, N. C. He was graduated from the Medical College of the University of Maryland, in Baltimore. He practised medicine a year in Baltimore, and came to this city in 1872, where he was a successful medical practitioner until failing health a year ago obliged him to give up his profession, and he moved to Brooklyn. His death was due to congestion of the brain.

Dr. William H. Welch, of New York, has been elected Professor of Pathology in the Johns Hopkins University. Very sincere regrets will be felt by Dr. Welch's many friends in this city that he is going away. At the same time he is to be congratulated upon the honor tendered him.

A New Medical College in Boston.—It is rumored that a new medical college is to be established in Boston. It is to be a branch of Tuft's College.

Death of Dumas.—The death of Professor J. B. Dumas, member of the Académie de Médecine, and author of many scientific works, is announced.

The Kentucky State Medical Society.—The twenty-ninth annual meeting of the Kentucky State Medical Society will be held in the city of Bowling Green, Ky., from 12 o'clock A.M. of Tuesday, June 3, 1884, to Thursday, June 5, 1884, inclusive. Dr. S. M. Letcher, Secretary.

A Yankee Definition of Bronchitis is the title of a critical article in the *Medical Press and Circular* upon an article written by a Canadian and published in a Canadian medical journal. This is the first time we have heard Canadians called Yankees. Certain English writers seem to have even looser geographical ideas than the French.

A PRIZE FOR AN ESSAY ON THE BACILLUS OF TYPHOID FEVER.—An attempt to isolate the bacillus of enteric fever will probably be made under the stimulus given by the munificent offer of a Fellow of the Linnæan Society of New South Wales to give a prize of £100 for the best essay on "The Life-History of the Bacillus of Typhoid Fever." Compositions must be written in English, and delivered at the Society's house by December 31st next.

DIED IN THE DISCHARGE OF DUTY.—The physician who dies from disease contracted in the discharge of duty is as much a hero as the soldier who falls in battle. Dr. A. Randolph Mott, resident physician at the Riverside Hospital, was attacked by typhus fever, which he contracted in attending to his duties three weeks ago, and died last week. He was twenty-six years old, and was born at Leesburg, Va., where his father is an eminent physician. Dr. Mott was graduated from the University of Virginia in 1878, and came to this city, where he was appointed a physician without salary at the work-house. From there he went to the Randall's Island Infant Hospital and Hart's Island Hospital. In 1881 he went to the Riverside Hospital as assistant to Dr. Chapin. He was Lecturer on Gynecology at the Polyclinic Institute.

WAS GUITEAU INSANE?—The question as to the insanity of Guiteau appears to be a burning one in St. Louis. The *Alienist Neurologist* continues to present articles upon it and promises more.

A BIOLOGICAL ASSOCIATION has recently been organized in London under the auspices of Professors Huxley and Ray Lankester.

SIR WILLIAM JENNER has been re-elected President of the Royal College of Physicians, London.

THE DEATH OF MR. SQUIRE, author of the "Companion to the Pharmacopœia," and of the "Pharmacopœia of the London Hospitals," is announced. Deceased was eighty-five years of age. Mr. Squire was one of the founders of the Pharmaceutical Society of Great Britain and of the College of Chemistry.

MICROCOCCI OF PNEUMONIA.—Professor Purjesz, of Buda-Pesth, states that he has found Friedländer micrococci of pneumonia in other diseases, and has not always found them in pneumonia. He denies the infectious character of the disease.

JOHN BRIGHT'S DISEASE.—Medical London has been exercised over the fact that John Bright, who is ill, has called on a homœopath to attend him.

NEWPORT (R. I.) MEDICAL SOCIETY.—At the annual meeting the following officers were elected for the ensuing year: *President*—Dr. H. R. Storer; *Vice-President*—Dr. Samuel W. Francis; *Secretary*—Dr. Thatcher Goddards; *Treasurer*—Dr. Wm. C. Rives, Jr.; *Librarian*—Dr. C. F. Barker; *Curator*—Dr. Stephen H. Sears. The society is in a flourishing condition.

A GENEROUS DONATION.—Mr. George Stephen has given to the Montreal General Hospital the sum of $50,000, to commemorate the memory of Dr. George W. Campbell.

BEQUESTS TO MEDICAL CHARITIES.—The late Mrs. Oswald Ottendorfer bequeathed in her will $10,000 to the German Hospital and Dispensary, and $5,000 to the German Hospital in Newark, N. J.

THE CHOLERA BACILLUS.—A recent telegram from Calcutta states that Dr. Vincent Richards, civil surgeon of Goalundo, has caused the death of a pig from cholera by inoculating the animal with the virus. We are not informed, however, whether the "virus" means the cultivated bacillus or the cholera secretions. It makes a great deal of difference.

A DEATH DURING THE ADMINISTRATION OF AN ANÆSTHETIC occurred in Billroth's clinic recently. The operation was for removal of a goitre in a healthy young man. The usual anæsthetic mixture was employed. The patient ceased breathing, and artificial respiration was resorted to. During this process some air was sucked into the veins.

ADULTERATED MUSTARD.—Boards of Health periodically startle the laity by announcements of new adulterations in spices. Our city Board has recently been investigating mustard, and finds a kind of explosive dye in many samples. Everyone by this time knows that spices are greatly adulterated. We want a remedy.

THE MCGILL MEDICAL COLLEGE.—The Medical College of the McGill University has raised and had donated to it the sum of $100,000, and it is now one of the fortunate endowed medical colleges. Fifty thousand dollars was presented by Hon. D. A. Smith. At the commencement of the McGillCollege, March 29th, thirty-four students were graduated.

THE THIRTY-EIGHTH ANNUAL MEETING OF THE ASSOCIATION OF MEDICAL SUPERINTENDENTS for the Insane was held in Philadelphia the past week.

A STATE HOSPITAL FOR EPILEPTICS.—Dr. Carlos F. MacDonald, of the Auburn Insane Asylum, urges the State to give him a new building with a farm outside the city limits. His present building could then be used as a State Hospital for Epileptics.

APPROPRIATIONS FOR THE MEDICAL CHARITIES OF THE CITY.—The annual distribution of the portion of the excise fund set aside for charities has been made. The total sum this year was $138,710. Twenty-one dispensaries and hospitals received sums varying between one thousand and seven thousand dollars. St. Francis Hospital received the largest amount, $7,656.

THE ITALIAN MEDICAL REVIVAL.—An interesting account is given by *The Lancet* of the present and rapid growth of medical science in Italy. Two new medical journals have just been started, which makes the total number of Italian medical journals fifty-four. Twelve of these are published in Naples, and ten in Milan. Milan is now a great publishing centre. There are 1,200 students at the University at Naples, and the other Universities at Turin, Pavia, and Padua are flourishing. The number of original workers is already considerable, and the names of Bizzozero, Semmola, Bottini Bufalini, and Crudeli are familiar to American readers. It seems likely that the Italian school will revive the fame of its older days.

Reports of Societies.

PENNSYLVANIA STATE MEDICAL SOCIETY.

Thirty-fifth Annual Session, held at Philadelphia, Pa., May 14, 15, and 16, 1884.

(By telegraph to THE MEDICAL RECORD.)

WEDNESDAY, MAY 14TH—FIRST DAY.

THE session opened in the Union League Annex, May 14th, and was well attended.

There were about three hundred and sixty delegates present, representing every county in the State. HENRY H. SMITH, M.D., of Philadelphia, occupied the chair. After prayer by the Rev. JOHN S. MACINTOSH, D.D., and an

ADDRESS OF WELCOME

by JOHN B. ROBERTS, M.D., Chairman of the Reception Committee, GOVERNOR PATTERSON delivered an address, expressing great pleasure at having been selected to open the meeting of the State Medical Society. He had reasons, as Governor of the Commonwealth, to be proud of the progress of medical science in the State. Its schools of medicine were known throughout the length and breadth of the land, and were unequalled anywhere. Its physicians were celebrated for their learning and achievements. It was in Pennsylvania—in this very city—that the first systematic course of study in medicine, from which sprung the University of Pennsylvania, was instituted on this continent. Philadelphia might be termed the Edessa of medical instruction in America, and deserves the reputation, for it is to-day the foremost seat of medical education in the land. This city has been the nursery from which have gone out the men who have given to the science in the United States a distinguished reputation in the most famous schools in Europe. A great loss was suffered lately in the death of that great man to whom more than any other we owe our honorable fame in the field of medical learning, he whom all regarded with so much pride and veneration, to whose masterly mind two continents paid honor, and who held the triple tributes of Oxford, Cambridge, and Edinburgh. In the

DEATH OF PROFESSOR SAMUEL D. GROSS,

the profession of medicine has suffered "a perilous gash, a very limb lopped off." The Governor closed by referring briefly to the progress of the science of medicine and by counselling the Society to so conduct its proceedings as to reflect honor and glory upon the State.

At the conclusion of the address DR. EDWARD JACKSON, of West Chester, presented a list of delegates from other societies and of visitors who were not delegates, and asked that they be admitted to the Convention.

ADMITTING THE FEMALE PHYSICIANS.

DR. WILLIAM B. ATKINSON, the Secretary, presented a supplementary list of physicians who are not members of the Philadelphia County Medical Society, and who, he thought, were entitled to admission. The list contained the names of Clara Marshall, Francis Emily White, Anna E. Bromall, Hannah T. Croasdale, Rachel L. Bodley, Emilie B. Dubois, Ida E. Richardson, and Emma V. Boone, who had been denied admission to the Philadelphia County Medical Society on account of their sex.

DR. J. L. STEWART, of Erie, objected to admitting them, but the objection was not sustained, President Smith stating that the women were members of the profession, and therefore entitled to a seat in the Convention. The Society need not, however, admit them as members, but simply as visitors, without the privilege of voting.

Dr. Stewart appeared to be satisfied with the restriction and withdrew his objection, and the physicians were then admitted.

OBJECTING TO FREE ADVERTISING.

A sensation was caused by the reading of the report of the Committee on Publication. The Committee presented a list of the papers which have been prepared for the consideration of the Society, and recommended that they be published.

DR. O. H. ALLIS, of Philadelphia, arose at this point and offered a resolution providing that no abstract of any paper read during the session should be published until approved by the Committee on Publication. He said he objected to the course heretofore pursued in this matter. Some members furnished abstracts of their papers to the press and succeeded in having them published, sometimes to the extent of a column or two, while others were cut off with a few lines. This was done not because of any difference in the merits of the papers, but simply because

SOME OF THE MEMBERS WERE SMARTER THAN OTHERS, AND KNEW HOW TO GET THEIR EFFUSIONS INTO PRINT.

This, he thought, was the worst kind of advertising dodge, and ought not to be allowed. It was

WHOLESALE NEWSPAPER ADVERTISING,

contrary to the ethics of the medical profession, and to every instinct of fair play. It ought to be checked, and checked immediately.

After further discussion the subject was referred to a committee of five, with instructions to present a report.

VIVISECTION.

DR. S. WEIR-MITCHELL, of Philadelphia, read the report of the Committee on the Appeal of the American Anti-vivisection Society. He sketched the history of vivisection, and referred to the opposition to it in this country and in England. He said that many physicians thought there was no harm in experimenting upon animals, and that to check it would place a serious hindrance on physiological research. The restrictive law passed by the British Parliament was very unpopular, and was doing great harm. It had interfered with the research on the subject of

SNAKE-POISONS AND THEIR EFFECTS ON THE HUMAN BODY.

He had made application to physicians in India for snake-poisons, for the purpose of experimenting with them, but he could not get them, owing to the law on the subject. Fortunately for humanity, however, the proposition to abolish vivisection universally was now unpopular, and has little chance of becoming a law. There was no truth in the reports of the cruelties practised upon animals in the attempt to advance science. The New York Legislature has not passed a restricting law. It has been charged that vivisection was carried on in this State to an unwarranted extent. This is untrue. There are only a few medical colleges in the State where vivisection is practised. A few urbane lawyers and ladies think that a curb should be put upon the doctors, but at a meeting held in London recently, twenty-four hundred physicians, from all parts of the world, placed the seal of their approval on vivisection.

THE PRACTICE OF VIVISECTION ENDORSED.

The speaker then offered the following resolution, which was adopted without a dissenting voice:

Resolved, That in view of the attempts which have been or may be made to obstruct, by restrictive legislation, the progress of experimental medicine, this Society desires to express its earnest conviction that experimenting on animals is a most useful source of knowledge in medical science; that it is the means by which many im-

portant discoveries, both practical and scientific, have been accomplished; that its direction and supervision can be properly entrusted only to members of the medical profession, and that its restriction or prohibition by law would inevitably retard the acquisition of knowledge in respect to healthy and morbid actions, the causes and prevention of disease, and the improvement of the medical art.

A STATE BOARD OF HEALTH.

The report of the Committee on the State Board of Health was presented by DR. BENJAMIN LEE, of Philadelphia. The report stated that as the Legislature was not in session during the past winter, there was no opportunity for pressing legislation upon this important subject. Long experience shows that nothing can be done in this direction unless the public is awakened to the importance of the work. When the Legislature is convinced that the people want a health bureau, they would be ready to create it. The report was received, and on motion of Dr. E. A. Wood, of Pittsburg, a committee was appointed to prepare a plan for the organization of a State Board of Health.

DENOUNCING THE ADULTERATION OF DRUGS.

DR. JOHN V. SHOEMAKER, of Philadelphia, offered the following resolution, which was adopted:

Whereas, The efforts of physicians to treat and overcome disease are in a large measure dependent on the use of pure and properly prepared drugs and remedies; and whereas, Pharmacy is an aid to medicine in preparing, compounding, and dispensing the proper medical agents, and is at present not controlled by any law for efficiency in the art of those practising the same required by any law of the State of Pennsylvania,

Resolved, That the Medical Society of the State of Pennsylvania, assembled at their annual session, endorses the passage of the act to regulate the practice of pharmacy and sale of poisons, and to prevent adulteration in drugs and medicinal preparations in the State of Pennsylvania, as proposed and framed by the Pennsylvania Pharmaceutical Association, and recommends its passage by the Legislature of this State at its next session.

NO TEMPERANCE "IN THEIRS."

DR. BIRDSALL, of the Susquehanna County Medical Society, offered a resolution to appoint a committee to consider the propriety of recommending the restriction of the use of intoxicating liquors as beverages.

This met with a storm of opposition, and, at the suggestion of DR. E. A. WOOD, of Pittsburg, who said that such action was unwise and uncalled for on the part of the Society, it was voted down.

A recess was then taken.

Upon reassembling at 2 o'clock, DR. BENJAMIN LEE, of Philadelphia, read an address on Hygiene and State Medicine, entitled

THE PRESENT OUTCOME OF SANITARY AGITATION IN LARGE CITIES OF THE UNITED STATES.

He pointed out the well-recognized dangers of sewer-gas in houses, and inclined to the opinion that in the present state of public feeling there was a strong leaning toward private as against public means of inspection.

After this DR. E. A. WOOD, of Pittsburg, read a paper on

A PENNSYLVANIA STATE BOARD OF HEALTH,

favoring the establishment of the board.

DR. HENRY LEFFMANN, of Philadelphia, followed with a paper on

PROPER MEDICAL EDUCATION,

in which he claimed that the present system of medical education is not the result of efforts to meet the needs of the community, but is largely an irregular development. The reforms which medical colleges have adopted have been mostly unwilling concessions to public sentiment. The sevenfold division of branches has nothing to recommend it but antiquity; it is not a convenient nor a scientific division of the subject. Under this arrangement some of the departments of the college course are overcrowded, while others have not sufficient matter to occupy the time assigned. Departments like hygiene, nervous and mental diseases, and medical jurisprudence have developed so of late years that they might properly be taught by separate chairs, and not made merely subsidiary to other chairs or limited to spring or fall lectureships. The extension and success of post-graduate schools indicates the direction in which improvement of the curriculum should be made. Higher specialization is the necessity of the time. The success which has been attained by dentistry shows that other departments, such as otology, laryngology, etc., might with advantage be pursued independently. There would be no reasonable objection to establishing the degrees of Doctor of Otology, Ophthalmology, and so on, commensurate with the degree of Doctor of Dental Surgery.

A preliminary training for the student before entering upon the study of medicine is so obviously necessary that it need not be argued. The final work of medical reform will be accomplished when the college is made merely the instructor, the license to practise being given by an official board of examiners after a public written examination.

Following this, DR. THOMAS H. FENTON read a paper entitled

HYGIENE IN THE PUBLIC SCHOOLS,

in which he said that two hundred and twelve thousand children attended the public schools of Philadelphia in 1880. The value of the school buildings was $6,179,750. The location of many of these was faulty as to light and air. Ventilation especially is defective, no provision being made for the exit of foul air beyond the opening of the windows. Special care has been taken to ascertain the truth of this point by accurate and careful tests, which were described at length by the lecturer. The means for remedying this were referred to, and plans given for securing a free supply of air at proper temperature without drafts. The next defect noted was that of drainage, and the poor arrangements, especially of water-closets, was considered. Next came the important point of desks and seats; the bad effect of careless arrangement of these upon the spine, the chest, and the eyes was dwelt on at length. The prevalence of myopia was stated, and the difficulty of managing it without proper arrangements for holding books, etc., before the eyes of the children at proper distances was defined. The plan of allowing the light to fall directly upon the faces of the pupils was condemned, and the lack of proper illumination of black-boards was referred to. The color of walls, ceilings, and the paper of books was stated to be very important. Many valuable suggestions as to the better care of the children attending our schools were made, and the paper was full of interest.

DR. ALICE BENNETT then read her address on

THE RELATION OF HEART DISEASE TO INSANITY.

The paper was especially designed to call attention to the coincidence of heart disease with a certain form of chronic mania. Sixteen cases were then related, some of the general features running through which were as follows: They begin generally in middle life; the invasion is usually gradual; ascribed to no cause or to one obviously inadequate. The first symptoms are invariably hallucinations of one or more senses, generally of hearing; and subsequent delusions of persecution. A woman, previously supposed to be in good health, begins to hear voices in the ceiling above her, and this goes on to confirmed delusions. In a large proportion of these cases disease of the heart is found.

The writer does not attempt to draw any inference from these cases, which she offers more as a rather remarkable series of coincidences, that among five hundred patients a certain distinctive form of mania has been found, almost without exception, associated with valvular disease of the heart, generally mitral. Whether the frequency of the coincidence justifies the suspicion of a causal relation she does not attempt to decide.

A paper

ON THE PROTECTIVE RIGHT OF THE INSANE IN PENNSYLVANIA.

by DR. R. H. CHASE, of Montgomery County, was then read.

DR. JOHN B. ROBERTS offered

A RESOLUTION PROVIDING FOR THE ESTABLISHMENT OF A MEDICAL COLLEGE IN THE STATE OF PENNSYLVANIA,

to be endorsed by the Legislature. After much discussion his resolution was tabled and the Society adjourned.

The visitors then inspected the Pennsylvania Hospital, one of the oldest institutions in this country, after which the president, DR. HENRY H. SMITH, held his reception, and the evening was devoted to a banquet by the Philadelphia County Medical Society.

(To be continued.)

AMERICAN LARYNGOLOGICAL ASSOCIATION.

Sixth Annual Congress, held in New York, May 12, 13, and 14, 1884.

MONDAY, MAY 12—FIRST DAY—MORNING SESSION.

THE Association met in the hall of the New York Academy of Medicine, and was called to order at 10 A.M. by the President, DR. FRANCKE H. BOSWORTH, of New York.

After the calling of the roll the President delivered the Address of Welcome, in which he briefly reviewed the progress made in the Association and the department of medicine which it represents. This was followed by a paper on

THE CLINICAL SIGNIFICANCE OF FIBRINOUS EXUDATIONS UPON THE MUCOUS MEMBRANE OF THE UPPER AIR-PASSAGES,

by the President, in which he first described the characteristics of catarrhal inflammation, due, in a majority of cases, to taking cold, and producing an exaggeration of the normal physiological processes.

On the other hand, the affections characterized by fibrinous exudation upon the surface of the mucous membrane indicates a disease entirely distinct from the catarrhal process. The essential feature of the morbid process is not hyperæmia, or hypersecretion, or cell proliferation, but an element which points to a constitutional affection. The most common of this group is *follicular tonsillitis*, consisting locally in an exudation into the crypts of the tonsils, the prominent features being marked febrile movement, and marked constitutional disturbance. Here, then, is something more than a disease due to an ordinary cold, and it seemed to him that it should be regarded as akin to an essential fever, not differing materially from an exanthem, the local lesion being evidence of a general affection produced by a micro-organism.

Another class of cases is grouped under *follicular pharyngitis*, with symptoms the same as those described, the only difference being that which arises from the situation of the eruption. Another group includes *follicular inflammation of the pharyngeal tonsil*, differing in no essential particular from inflammation of the faucial tonsil.

Another group of cases is included under the term *croupous tonsillitis*. In young children this means the possibility of the development of croupous laryngitis, an exceedingly dangerous disease.

The President regards diphtheria and croup as distinct diseases, but, at the same time, both are due to micro-organisms. He closed his paper with the propositions that fibrinous exudation occurring in the crypts of the tonsils and upon the mucous membrane of the lower pharynx has no tendency to extend, and is self-limited; that the fibrinous exudation which occurs upon the surface of the tonsils runs a course, and presents an appearance by which it can be recognized; that a croupous inflammation of the mucous membrane of the fauces in adults, is a self-limited affection; that when the same disease occurs in children, there is direct danger of a new centre of inflammation developing in the larynx; that diphtheritic membrane developed in the fauces marks a disease dangerous to life with a marked tendency to development of the same process in the larynx.

DR. BEVERLEY ROBINSON, of New York, took exception to the view of the President regarding follicular tonsillitis as an essential fever, although the febrile movement in many cases lasts for several days. Moreover, the pathological change did not resemble at all that alluded to as belonging to a true croupous membrane, and is not of the nature of a fibrinous exudation. Dr. Robinson also believed that cases are quite numerous in which the physical appearances of the exudation upon the mucous membrane are not alone sufficient to indicate what the diagnosis should be. He also believed that there are certain cases, not so very frequent, in which at the outset the disease is what Da Costa has termed herpetic tonsillitis, and that it should be so termed rather than receive the name designated by the President in the first part of his paper. He was not prepared to accept the view of the President concerning the germ theory of these diseases, and he also regarded it as wrong to say that diphtheria is essentially the same in all cases, in the sense of its absolute gravity, for there are different grades in the severity of the type which materially affects the question of prognosis.

DR. W. C. JARVIS, of New York, agreed with the President as to the gross appearances of the different affections of the throat described. He had observed pharyngitis of two kinds: 1, that in which the follicles are affected acutely, and manifest no tendency to the formation of membrane; and 2, that in which the follicles are not so generally affected, but those involved exhibit a tendency to retain the secretion, and when finally the distended epithelial covering ruptures, the exudation spreads over the surface and gives an appearance closely resembling that presented by a membrane. He believed that the President placed too much stress on the germ theory, and was of the opinion, as the result of observations made long ago, that the presence of micro-organisms was merely an associated fact, and not a causative factor in the development of this class of diseases.

THE PRESIDENT took exception to Dr. Robinson's statement that follicular tonsillitis is characterized by the formation of cheesy masses in the crypts of the tonsils. The point which he wished to emphasize distinctly was that we have within our reach methods of examining by which a great deal of light can be thrown upon the clinical tendencies of local inflammatory diseases of the fauces; and that from the clinical standpoint a careful observation of the gross appearance of the exudation upon the mucous membrane of the fauces had been heretofore insufficiently considered. We already know what the course of acute follicular tonsillitis occurring in adults will be, and if we get a membrane what its course will be in the adult, while if it occurs in children the possibility exists of the development of another inflammatory centre in the larynx, causing the greatest danger, due to mechanical obstruction. As to the germ theory, it seemed to him that in absence of any more

satisfactory explanation, it best explained the phenomena of these diseases.

Dr. F. I. Knight, of Boston, directed attention to an important practical point, viz.: the increased susceptibility to diphtheritic infection existing in those who have an acute affection of the throat of any kind.

The President said that the point which he wished to make was that the mucous membrane in a state of acute catarrhal inflammation is a favorable medium for the lodgement of the germ which produces the diphtheritic process, without there necessarily being any connection between the two processes. He was ready to admit that if one of his children should have catarrhal pharyngitis, he would feel very much alarmed, although he did not believe that it was the prodromal stage of the diphtheritic process.

Dr. John N. Mackenzie, of Baltimore, then read a paper entitled

A CONTRIBUTION TO THE STUDY OF CONGENITAL SYPHILIS,

in which he directed attention to the manifestations of congenital syphilis in the throat, and their behavior under treatment. The text of the paper was the history of a case, which presented two features worthy of special consideration: 1, the degree of resulting stenosis of the lower pharynx; 2, paralysis of both upper eyelids, with subsequent paralysis of the abducens, and the occurrence of deafness in one ear. The case was one, then, of congenital syphilis affecting the cranial nerves. The points to which the author of the paper wished to direct special attention were, that there was no reason for believing in the existence of an ulcerative scrophulide of the throat; that while congenital syphilis afforded no protection against the occurrence of other diseases, it mitigated the course of certain acute affections accompanied by an exanthem; that the syphilitic ulceration of the throat is frequently cured by the intercurrent disease; that these remarks did not apply to malignant epidemic influences, or to syphilitic cachexia.

The President thought that the question of the identity, or the duality of scrofula and syphilis was an important one for consideration and either rejection or acceptance.

Dr. E. L. Shurley, of Detroit, thought that while there undoubtedly existed an intimate relationship between scrofula and syphilis, the two diseases were, and should be, kept entirely distinct. He was not prepared to say how much difference there was between scrofulous and tubercular ulceration.

Dr. Mackenzie did not wish to be understood that he said there was no difference between scrofula and syphilis, but simply that ulceration of the throat is an expression of some diathesis, which in the great majority of cases was syphilitic, lupoid, or tubercular, and that there is no distinctive point of difference between scrofulous and syphilitic ulceration of the throat, or between scrofulous and lupoid or tubercular ulceration. He did not mean to say that all scrofula is syphilis.

Dr. J. H. Hartman, of Baltimore, referred to a case of measles occurring in a syphilitic child where the ulcerated condition of the throat was materially aggravated and the child's condition was very much worse after than before the attack of measles occurred.

Dr. F. Donaldson, of Baltimore, referred to an undoubted case of scrofulous ulceration of the pharynx, independent of syphilis.

Dr. F. I. Knight, of Boston, felt very much as did Dr. Mackenzie, that where loss of substance of the mucous membrane of the pharynx occurred it was due to either the syphilitic or tubercular diathesis, and that in cases of doubt the patients, whether children or adults, should be treated in accordance with this general inference.

The President said he had a growing conviction, based upon observations made in a very large dispensary practice, that, so far as the mucous membrane of the upper air-passages was concerned, there was no difference between ulcerations due to scrofula and those caused by true syphilis. Of late he had depended upon mercurials in the treatment of all these cases, and the use of the remedy had been eminently satisfactory. Perhaps the results of treatment gave some ground for regarding the two affections as identical.

Dr. Mackenzie's treatment had consisted in the use of mercurials, iodide of potassium, and the local use of iodoform.

The President appointed as *Nominating Committee*, Drs. F. I. Knight, of Boston, G. M. Lefferts, of New York, and J. Solis-Cohen, of Philadelphia.

For *Auditing Committee*, Drs. J. N. Mackenzie, of Baltimore, and F. H. Hooper, of Boston.

New Fellows—Dr. S. Solis-Cohen, of Philadelphia, and Dr. Clarence C. Rice, of New York.

The Association then adjourned to meet at 3 P.M.

First Day—Afternoon Session.

The first paper was read by Dr. J. O. Roe, of Rochester, on

RETRO-PHARYNGEAL ABSCESS,

in which he referred to the two general classes of the affection: (1) Those which originate in the soft parts, and (2) those which arise from disease of the vertebræ. After describing the anatomical peculiarities of the glands and connective tissue in this region he passed to the causes of the affection, and mentioned the various causes of caries of the spine, etc. He then spoke of the differential diagnosis, and passed to the treatment, which consists only of prompt incision and evacuation of the pus, making a small opening at first, and holding the head forward to prevent pus from entering the larynx. Dr. Roe reported three cases.

Dr. T. A. DeBlois, of Boston, had had three cases, and thought sufficient importance had not been attached to the position of the head, namely, carried markedly backward, as a symptom of diagnostic value.

Dr. S. Johnson, of Baltimore, spoke of the direction of the incision as important in guarding against the danger of pus entering the larynx, namely, horizontal and inverting the child when it is made.

Dr. W. C. Jarvis, of New York, mentioned a case occurring in an adult as a complication of tonsillitis.

Dr. G. M. Lefferts thought it was only necessary to look into the throat, at most to introduce the finger, to make a correct diagnosis at once, and that it made no difference whether the incision was made horizontal or otherwise. The indication was to evacuate the abscess, and the sooner the better. He had seen only two cases, and thought that the disease was rare.

Dr. F. Donaldson, of Baltimore, referred to a case in which he emptied the abscess by means of an aspirator and completed the operation by making an incision.

Dr. G. W. Major, of Montreal, had had two cases, also one of sarcoma of the pharynx which had been mistaken for retro-pharyngeal abscess.

Dr. R. P. Lincoln, of New York, cited a case occurring in a child three years old, in which relief was afforded at once by opening the abscess, but it was accompanied by deep suppuration in the neck, which necessitated the use of the aspirator to effect a cure.

Dr. J. N. Mackenzie, of Baltimore, referred to a case of gummy tumor which presented all the usual appearances of retro-pharyngeal abscess, and it was only by incising the mass that the real nature of the case was determined. The case was interesting as evidence that neither look nor touch was always sufficient to establish a diagnosis.

Dr. E. F. Ingals, of Chicago, was surprised to hear that the occurrence of this form of abscess was so rare.

Dr. J. Solis-Cohen, of Philadelphia, said that the apprehended danger from pus entering the larynx when the abscess is opened could be obviated by operating with

the head pending, and making the incision from below upward. The chief objection to the horizontal incision was that it left a pocket into which pus might gravitate subsequently.

Dr. C. W. Chamberlain, of Hartford, Conn., cited a case in which the abscess burst and fatal hemorrhage occurred from rupture of the carotid artery.

The discussion was closed by the President and Dr. Roe.

Dr. T. A. DeBlois, of Boston, then read a paper in which he reported

A CASE OF CONGENITAL WEB OF THE VOCAL BANDS

occurring in the dispensary practice of his colleague, Dr. J. W. Fowler. Dr. DeBlois treated the case by introducing a pair of Mackenzie's forceps into the larynx, then opening and withdrawing them, so as to split the web. Several operations were necessary before this was accomplished, and after the desired result was secured, treatment was continued by dilatation with a probe.

Dr. J. H. Hartman, of Baltimore, seriously objected to this method of destroying the web, and thought it could have been accomplished by means of the galvano-cautery.

Dr. M. J. Asch, of New York, referred to a case in which a web formed as a result of acute laryngitis.

Dr. F. I. Knight, of Boston, thought there was no danger of doing damage to the larynx with the forceps where the web was as thin as it seemed to be in Dr. DeBlois' case, which he had an opportunity to examine. Certainly he should avoid the use of the galvano-cautery in the larynx.

Dr. DeBlois said that, while the web proved to be a little tougher than he supposed it was, he regarded the case as one which could not have been treated safely with either the knife or galvano-cautery.

Dr. William H. Daly, of Pittsburg, then read a paper in which he reported a case of

GUNSHOT WOUND OF THE LARYNX, IN WHICH THE VOCAL BANDS WERE INVOLVED.

He first referred to the literature of the subject as found in the "Surgical History of the War," and in the writings of Gross and Cohen. The case was that of H. C. D——, eighteen years of age, who was accidentally shot with a pistol, thirty-two calibre, the ball entering the right side of the neck, traversing the larynx, and lodging immediately over the left subclavian artery, from whence it was removed. The boy recovered, and regained the power of vocalization sufficient for all purposes except the requirements of an orator or elocutionist. Dr. Daly then read several histories which had been sent to him by medical gentlemen with whom he had corresponded with reference to this class of cases.

Dr. J. Solis-Cohen, of Philadelphia, said he had recently had occasion to look up the literature of gunshot wounds of the larynx, and was astonished to find how few cases were on record in military surgery. When he saw Dr. Daly's patient first he was unable to believe that the ball had penetrated the larynx, and it was still strange to him how it could pass through the larynx without producing more symptoms, and more destruction of the thyroid cartilage at the point of exit.

Dr. Lefferts, of New York, referred to a specimen in his collection which proved that a bullet-wound can be made in the larynx without extensive destruction of the thyroid cartilage, and have no place of exit.

Dr. Cohen said there were only *four* specimens in the Army Medical Museum at Washington of gunshot wounds of the larynx.

Dr. J. Solis-Cohen, of Philadelphia, then reported

A CASE OF COMPLETE UNILATERAL PARALYSIS OF ALL THE ADDUCTORS OF THE VOCAL BANDS, THE ABDUCTORS REMAINING INTACT.

The condition followed a suicidal wound in the neck.

The President thought it was the first authentic case demonstrating the possibility of the occurrence of true adductor paralysis.

The case was discussed by Drs. Knight, of Boston, Lefferts, of New York, and Seiler, of Philadelphia, who made critical remarks bearing upon possible explanations of the phenomenon, and also the rarity of its occurrence.

The Association then adjourned to meet at 11 A.M. on Tuesday, May 13th.

Tuesday, May 13—Second Day—Morning Session.

The Association was called to order by the First Vice-President, Dr. Samuel W. Langmaid, of Boston.

The first paper was read by Dr. F. H. Hooper, of Boston, and was entitled

A RARE FORM OF TUMOR (CAVERNOUS PAPILLOMA) OF THE VOCAL BAND.

The peculiarities of the case reported were the following: (1) it differed from any on record; (2) a bloody cystic growth; (3) the unusual happy termination—there has been no recurrence. It was a nodular sessile growth, situated on the anterior part of the left vocal band. It was removed by avulsion.

Dr. C. Seiler, of Philadelphia, had seen a very similar case, in which the growth was almost entirely angiomatous in character, and situated upon the right vocal band.

Dr. Morris J. Asch, of New York, then reported

A CASE OF ECCHONDROSIS OF THE LARYNX,

and said that only *two* cases had been reported in which the condition had been diagnosticated and the patient treated. Dr. Asch removed the growth by the endo-laryngeal method, using a Stoerk guillotine constructed especially for the purpose. The microscopical examination was made by Dr. George L. Peabody.

Dr. W. C. Jarvis, of New York, then read a paper entitled

A NEW METHOD FOR THE REMOVAL OF LARYNGEAL GROWTHS, WITH AN ILLUSTRATIVE CASE.

The paper was intended as a reclamation of the use of *chromic acid* in the removal of laryngeal papilloma. The method consisted in applying small quantities (one-sixth of a grain) at short intervals, fused upon the point of a probe. The escharotic dissolved immediately when applied to papillomatous tissues, was safe, painless, efficient, was restricted in its action to the neoplasm, and did not affect unfavorably the normal mucous membrane. It also subserved a double purpose—namely, enucleated the growth and prevented its recurrence. Dr. Jarvis exhibited an ingenious instrument which he had devised for applying the salt to neoplasms of the larynx, and then gave the history of his illustrative case, in which the large growth was successfully removed in about six weeks.

The paper was discussed by Dr. Cohen, of Philadelphia, who had been accustomed to remove these growths by means of forceps, perhaps applying chromic acid to the base; by Dr. J. O. Roe, of Rochester, who had adopted successfully similar measures; by Dr. Seiler, of Philadelphia, who had used a similar instrument, but not so neatly arranged as that exhibited by Dr. Jarvis; by Dr. Ingals, of Chicago, who had used an aluminium wire protected by a piece of rubber tubing with more satisfaction than any of the hooded instruments; by Dr. Major, of Montreal, who thought the success in the use of escharotics depended upon their affinity for water, and who had used with much satisfaction absolute alcohol in the form of a spray; and the discussion was closed by Dr. Jarvis, who believed that instrumental removal could not have been practised in his case, on account of the extreme spasm of the glottis.

PRESENTATION OF INSTRUMENTS.

DR. J. H. DOUGLAS, of New York, exhibited a new powder-blower.

DR. W. C. JARVIS exhibited a new laryngeal snare.

DR. J. N. MACKENZIE, of Baltimore, exhibited a new nasal speculum. He also made a suggestion concerning illumination of the nasal cavities by means of incandescent light.

DR. SEILER had used this light with decidedly unsatisfactory results.

DR. INGALS, of Chicago, referred to a device to facilitate the passage of the wire around growths in the posterior nares.

DR. C. E. SAJOUS, of Philadelphia, exhibited a new tonsillotome, and also a new uvulatome which leaves an oblique cut surface on the posterior aspect of the uvula.

DR. D. B. DELAVAN, of New York, exhibited a new instrument devised to facilitate alimentation in cases of dysphagia from any cause.

The Association then adjourned to meet at 3 P.M.

SECOND DAY—AFTERNOON SESSION.

DR. LANGMAID, Vice-President, in the chair.

On motion, by DR. KNIGHT, of Boston, the subject of *New Nomenclature* was referred to the Council for action and report at the next annual congress.

DR. D. BRYSON DELAVAN, of New York, then read a paper entitled

PERMANENT UNILATERAL PARALYSIS OF LARYNGEAL ABDUCTORS, FOLLOWING CEREBRAL HEMORRHAGE—UNIQUE CASE.

The case reported was interesting not only on account of its rarity, but because it opened for study the whole field of the causation of abductor paralysis. It was a case of cerebral hemorrhage with paralysis of the region of the pharynx and larynx, and in which all the paralytic symptoms had almost entirely disappeared except with reference to the laryngeal abductors of the right side, the paralysis of which had lasted seven years.

DR. KNIGHT, of Boston, mentioned a case in which a patient fell, struck upon the top of his head, noticed an alteration of the voice, and on subsequent examination the only lesion which could be found was paralysis of one laryngeal abductor.

DR. RUFUS P. LINCOLN, of New York, then read a paper in which he reported a case of

STRICTURE OF THE ŒSOPHAGUS,

occurring in a man, fifty years of age, and due to cancer. The dysphagia and dyspnœa were due to the cancerous material involving the laryngeal and œsophageal branches of the pneumogastric, and death occurred from changes produced in the cardiac branches by the same disease.

The paper was discussed by Dr. J. O. Roe, of Rochester, Dr. W. H. Daly, of Pittsburg, Dr. Donaldson, of Baltimore, Dr. Ingals, of Chicago, Dr. Knight, of Boston, and the discussion was closed by Dr. Lincoln.

DR. E. FLETCHER INGALS, of Chicago, read a paper in which he reported three cases of

TRACHEAL STENOSIS,

syphilitic in character, and in which relief was afforded by twenty large doses of iodide of potassium. The third case was one in which a distinct syphilitic history could not be obtained, but iodide of potassium cured the patient, and the peculiarity was that it yielded only when one hundred and twenty grains were taken four times a day for about ten days, and then after a short interval renewed in doses of sixty grains, and again increased to the largest quantity.

Remarks were made by Dr. De Blois, of Boston, Dr. Shurley, of Detroit, Dr. Langmaid, of Boston, and Dr. Delavan, of New York, who referred to cases similar in character and which yielded to similar treatment.

THE PRESIDENT preferred to use mercurial inunctions, especially as sometimes the iodide of potassium may produce dangerous pharyngeal and laryngeal irritation and œdema.

The Association then adjourned to meet on Wednesday at 10 A.M.

WEDNESDAY, MAY 14—THIRD DAY—MORNING SESSION.

The Association was called to order by the President, DR. BOSWORTH, of New York.

The first paper was read by DR. T. A. DE BLOIS, of Boston, entitled

CASES OF BUCCAL TUBERCULOSIS,

in which it was maintained that pulmonary tuberculosis preceded tuberculosis of either the pharynx or the larynx. Two cases were reported in which the lesion manifested itself in the buccal mucous membrane, first in the form of small nodules in the mucous membrane. The second case was one of laryngeal phthisis, in which the tubercular disease extended to the buccal cavity, and manifested itself chiefly in the tonsils, but the microscopical examination after autopsy failed to show the presence of tubercle tissue in this locality, although in abundance in the larynx and several other organs.

DR. LANGMAID, of Boston, said that when he first saw the second patient there was no evidence in her general appearance of pulmonary disease, but examination of the larynx, brought about by her peculiar voice, revealed a condition which led to examination of the lungs, when evidence of pulmonary phthisis was revealed.

THE PRESIDENT remarked that, so far as he knew, the microscopical examination given by Dr. DeBlois, was the first that had been reported of buccal tuberculosis. He regarded it as reasonable to believe that tuberculosis of the larynx or the upper air-passages can occur primarily. Besides, it was noticeable that the nearer the tuberculosis occurs to the outer world the more fatal it is, and the more difficult it is to allay the symptoms. From pulmonary phthisis patients may recover; also from laryngeal phthisis, but less frequently; but from buccal tuberculosis never, and the difficulty in allaying the symptoms manifests itself in the same ratio.

A communication from Dr. S. H. Chapman, of New Haven, Conn., was read and referred to the Council for action.

The Secretary read a letter received from Dr. William Porter, of St. Louis, mentioning his great affliction, and the President, on behalf of the Association, extended to Dr. Porter deep sympathy with him in his great bereavement.

DR. C. E. SAJOUS, of Philadelphia, then read a paper

ON HAY FEVER, AND ITS SUCCESSFUL TREATMENT,

in which he stated that the true theory concerning the disease was that it was due to idiosyncrasy becoming affected by certain emanations. Still there are cases in which dust will cause an access, but if we bear in mind the fact that the nasal mucous membrane is in a state of chronic hyperæsthesia, we can understand how an irritant in these patients can cause a greater degree of discomfort than in others. It was evident to him, also, that malformation of the nasal cavity is not the cause of the affection.

His mode of treatment consists in destroying as much as possible of the mucous membrane covering the turbinated bones. The galvano-cautery serves the best purpose for removing as much as possible of the mucous membrane of the middle and anterior turbinated bones. The operation does not impair the sense of smell.

Hay fever, therefore, according to the reader, is an idiosyncrasy influenced by certain substances; is accom-

panied by hyperæsthesia of the nasal passages; organic alteration of these parts annuls the hyperæsthesia; and destruction of the sensitive parts of the mucous membrane can be best effected by means of the galvano-cautery. His observations had been conducted without knowledge of Dr. Roe's paper on the same subject, and to whom he cheerfully accorded the credit of priority.

Dr. Shurley, of Detroit, had no doubt that the theory advanced by Dr. Sajous was correct, but concerning treatment, it had been his aim to merely cut off the peripheral filaments of the nerves, ascertaining with the probe where the hyperæsthesia was most marked, and then confine the application to the sensitive part.

Dr. Roe, of Rochester, regarded the affection as a localized disease of the terminal filaments of the nerves supplying the nasal mucous membrane. To destroy the tissue in which these filaments ramified cured the disease.

Dr. J. N. Mackenzie, of Baltimore, thought too much stress had been laid on local conditions of the nose, and believed that the local feature of the disease resides in an exalted excitability of the nasal tissue, especially where the spheno-palatine nerves are distributed, and that the essential nature of the disease consists in an abnormal excitability of the reflex nervous centres. So far as treatment was concerned, he thought that the best plan was to destroy the sensitive areas in the nasal cavities, and that if these are destroyed, no matter how sensitive the reflex centres may be, the patient will be cured. The most essential feature of the disease, then, is an abnormal excitability of the reflex nervous centres, which may be inherited or acquired, and set into action by a host of outside influences acting upon a hyperæsthetic nasal mucous membrane. It was undoubtedly true that in very many cases the attacks came on in certain months in the year, but this was not by any means a universal fact.

The President thought a better name than hay fever would be *vaso-motor rhinitis*. There are three elements in the affection: (1) the neurotic, as shown by Dr. Beard; (2) structural change in the nasal cavities, and (3) abnormal sensitiveness of the nasal mucous membrane to the action of some irritant, such as pollen, dust, etc. Remove either one of these elements and the patient is cured. To say that all cases are due to either one was wrong. He pointed with pride to the fact that it was in the American Laryngological Association that the best work toward a complete understanding of the affection had been done.

Dr. Sajous said he did not ignore the reflex centres, as without doubt they played the most important part in the development of the disease; but the surface principally exposed to the action of exciting causes was that of the nasal cavities.

Dr. E. L. Shurley then read a paper on

THE COMPARATIVE VALUE OF THE GALVANO-CAUTERY IN DISEASES OF THE NASAL AND PHARYNGEAL CAVITIES,

in which he called attention first to the conditions necessitating the employment of the galvano-cautery; second, the comparative value of this agent; and third, its intelligent application. Aside from the conditions which by common consent admit of the use of this agent, we should positively discover whether the nasal mucous membrane is temporarily swollen or permanently thickened. In all cases no more of the mucous membrane should be destroyed than is absolutely necessary, for cicatricial tissue does not supply the needs of nature.

Under the second head came mechanical, chemical, and electrical agents. Of the mechanical, Bosworth's modification of Jarvis' snare had served him best for the removal of polypi, but he had been unsuccessful—probably from lack of skill—in the use of any snare for the removal of hypertrophied mucous membrane.

Chemical agents failed to destroy sufficient of tissue, unless applied so frequently that they were followed by damaging reaction.

The great merit of the galvano-cautery consisted in the precision with which the offending part could be touched. The mucous and submucous tissue must be completely divided.

Dr. Jarvis, of New York, spoke of the special efficiency of the little needle in conjunction with his snare in limiting the amount of tissue to be removed, a result which cannot be accomplished so exactly with the galvano-cautery.

Dr. Sajous, of Philadelphia, had used the needle devised by Dr. Jarvis and found it very serviceable in cases in which the desired effect could not be produced by the galvano-cautery without destroying too much tissue.

Dr. Roe had used the galvano-cautery with good results in many cases, but believed that it should be used with great discrimination and care. For obliterating deep vessels it was the best agent that could be employed. In cases of marked hypertrophy of the mucous membrane he always used the snare.

Dr. Mackenzie was a warm advocate of the snare, yet there were cases in which it could not be used. He agreed with Dr. Shurley that the very best treatment for granular pharyngitis was the galvano-cautery.

Dr. Beverley Robinson, of New York, then read a paper entitled

A CONTRIBUTION TO THE STUDY OF ADENOID VEGETATIONS AT THE VAULT OF THE PHARYNX.

He had met with these growths only infrequently. He had yet to encounter the first case in which the growths had impinged upon the orifices of the Eustachian tube and produced deafness, and believed that the ear disease in these cases was due to extension of inflammation to the middle ear.

He took exception to the view which called chronic follicular pharyngitis adenoid vegetations. Scraping, cutting (Meyer's method was the best), and the galvano-cautery were the means he had employed for their removal.

Dr. Langmaid had a case in which removal of a large soft growth was followed by immediate restoration of hearing.

Dr. Mackenzie uses forceps in these cases, and follows with a spray of alcohol. To allow these to remain until puberty was a very fallacious idea.

Dr. Major removes the growths with the finger-nail at the same time he introduces the finger for diagnostic purposes.

Dr. Roe uses forceps, and Dr. Asch has adopted different methods.

Dr. Jarvis protested against the use of forceps, on the ground that it is dangerous to grope around in the dark behind the palate.

Dr. Robinson said that the most important feature of his paper was the claim that, in one-half of the cases at least, mechanical measures are used unnecessarily.

Dr. Louis Elsberg, of New York, then read a paper

ON SPASM OF THE GLOTTIS,

in which he defined laryngeal spasm to be spasmodic contraction of one or more of the laryngeal muscles; and then presented the subject fully under the heads of classification, etiology, diagnosis, differential diagnosis, etc. In conclusion he answered questions put by several of the members.

The following were elected officers for the ensuing year, after which the Association adjourned, the time and place for the next annual congress to be decided by the Council:

President—E. L. Shurley, M.D., of Detroit; *First Vice-President*—J. H. Hartman, M.D., of Baltimore; *Second Vice-President*—William H. Daly, M.D., of Pittsburg; *Secretary and Treasurer*—D. Bryson Delavan, M.D., of New York; *Librarian*—Thomas R. French, M.D., of Brooklyn; *Council*—Drs. Francke H. Bosworth, Morris J. Asch, and Beverley Robinson, of New York, and Dr. Frank Donaldson, of Baltimore.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, May 1, 1884.

HORACE T. HANKS, M.D., VICE-PRESIDENT, IN THE CHAIR.

THE Corresponding Secretary, Dr. John G. Adams, announced the death of Brevet Brigadier-General John M. Cuyler, M.D., of Morristown, N. J., an honorary member.

The Statistical Secretary, Dr. Francis V. White, announced the death of Willard Parker, M.D., LL.D., one of the founders of the Academy and an ex-Vice-President. The Chair appointed Dr. John C. Dalton and Dr. Wm. H. Draper a committee to prepare a memoir.

DR. JOHN G. ADAMS then read a memoir of the late

EDWARD LANGDON BEADLE, M.D.,

one of the founders of the Academy, a steady contributor to its support, and who left it a legacy of $5,000, together with his library. Dr. Beadle resided in Poughkeepsie, and his funeral services took place April 5, 1882. The memorialist set forth the characteristics included in the social excellence, the intense courage, the executive ability, the unassuming usefulness, and the inflexible integrity of the deceased, for whom the paths of duty and happiness ran in parallel lines.

STUDIES IN INTERNAL ENDOMETRITIS.

DR. MARY PUTNAM-JACOBI read an elaborate paper on the above subject, in which she spoke first of the anatomy, and directed special attention to the view of Leopold, which gave the inference that the endometrium was regarded as only an immense lymph sac, an inference singularly wide of the mark, as it merely took into account one of the properties which it possessed in common with other organs.

The author of the paper then submitted twelve propositions, of which the following are some of the important points:

1. The essential part of the utero-ovarian system is the endometrium, which may appropriately be called a germinative membrane, because it is the seat of the process of germination of embryonic elements.

2. The utero-ovarian system may be said to have no function.

3. The reproducing tissues generally assume new properties or functions at certain epochs, and continue their manifestations with the single property of growth until the menopause. So with the ovaries: before menstruation is established, the process of growth is continuous; subsequently the process sustains a series of interruptions by means of which is deflected into cyclical movements the changes and processes that occur during their period of activity. There are two cycles: the lesser, menstruation; the greater, pregnancy.

4. The homology between these two cycles is complete.

5. The characteristic disease of the greater cycle is subinvolution of the uterus and its annexæ, namely, the ovaries and the venous plexuses contained in the broad ligaments. The characteristic disease of the lesser cycle is subinvolution of the endometrium after menstruation.

6. In both cycles the physiological process of growth is initiated in the endometrium. Menstruation is initiated in the same tissue, and the cause of failure in this regard is to be sought there. Chronic metritis in the multiparæ or nulliparæ originates in endometritis, which implies subinvolution of the endometrium.

7. Parenchymatous disease of the uterus depends upon disease of the lining membrane or the membrane covering its surface.

8. Nearly all other utero-ovarian diseases may be similarly traced to disease of this germinal membrane. Diseases of the ovaries are due in a large proportion of cases to original trouble in the endometrium. Even neoplasms begin in a deviation in the processes of growth taking place first in the endometrium. Disease of the uterine cervix may be primary.

9. Thus, with the exception just named, utero-ovarian affections should be regarded as unique, the real disease being subinvolution of the germinative membrane with its consequent complications.

10. Utero-ovarian disease is a deviation of the process of growth habitually sustained in the utero-ovarian tissues. The most common is called inflammation, and toward the close of the active period of menstrual life the deviation may be exaggerated and terminate in the development of neoplasms.

11. The ultimate object of all treatment of utero-ovarian disease must be restoration of the integrity of the normal processes occurring in the endometrium, which may be affected either directly or indirectly, the object remaining essentially the same in either instance.

12. Both for the success and safety of local treatment of endometritis, it is essential to take into account the rhythmic change of which it is the seat.

The author of the paper then elaborated each of these propositions. That the endometrium is the essential part of the utero-ovarian system cannot be disproved from a physiological point of view. Facts have established a continuous inter-menstrual growth of the endometrium. The development of the uterine parenchyma belongs to pregnancy only.

A NEW HYPOTHESIS CONCERNING MENSTRUATION.

The peri-uterine and ovarian plexuses constitute a reservoir of blood to meet the demands of pregnancy. This reservoir is reproductive. *Hypothesis:* That the accumulation of blood in the plexus is effected by the gradual growth of the veins of which it is composed, and as their lumen enlarges more blood is aspirated into them, and the appearance of engorgement is developed, which really depends upon actual new growth of the vessels, which marches *pari passu* with the development of the Graafiian follicles and the endometrium.

In menstruation the endometrium grows until a certain point is reached, when growth is arrested by *pressure* and the vitality of the surface is destroyed, and exfoliation takes place. The amount of pressure is according to the measure of growth against the uterine tissues, and the metamorphosis affecting the epithelial layer gives rise to rupture of capillaries and pouring forth of blood upon its surface.

The so-called uterine glands *have no function*, and are analogous to the depressions in the brain called convolutions. The uterine tissue also has no function. There is no case of subinvolution which does not exhibit at the beginning some form of endometritis, either congestive, catarrhal, or fungous, from formation of granulation tissue. Parenchymatous inflammation further favors growth of the endometrium.

The characteristic symptoms of endometritis are all due to malnutrition of the peripheral extremities of the utero-ovarian nerves from excess of blood.

There is a marked similarity between the symptoms of endometritis and pregnancy, and nausea indicates that the disease, which perhaps began in the cervix, has extended beyond the internal os. The links in the semeiological chain are in regular order endometritis, disturbances of the spinal cord, disturbances of the medulla, and in aggregation a dash upon the occipital portion of the brain, giving rise during origin, progress, and with destruction, to the multitudinous nervous phenomena developed during the existence of the disease.

There are symptoms which are always present in endometritis: the passage of a fine probe through the internal os causes exquisite pain; there is hyperæsthesia attended by hyperæmia; the fundus of the uterus is sensitive under abdominal palpation, and the patient suffers from dysmenorrhœa.

Pain occurring during the menstrual flow is *never ovarian*, but due to endometritis, malnutrition, etc.

The pain of ovarian disease is relieved by the flow, and where it exists it will be found that endometritis coexists.

THE TERMINATIONS OF ENDOMETRITIS

are peri-uterine inflammation, flexions and versions, and, finally, cervical catarrh.

The author of the paper commented on these, and then gave an ingenious

EXPLANATION OF UTERINE DISPLACEMENTS,

based upon the relations of the uterine ligaments to the endometrium. Anterior flexion depends upon irritation of the uterine portion reflected through the round ligaments; if fundal irritation is reflected through the utero-sacral ligaments anteversion takes place.

With retroflexion and version there is no irritative mechanism, but it is rather paretic because the ligaments are too short, unless there is relaxation of the round and the utero-sacral ligaments. The displacements are only incidental, and radical cure by means of pessaries will be the exception and not the rule.

The ultimate object of *treatment* is destruction of the subinvoluted portion of the endometrium, and the remedies used should contribute to stimulate healthy processes.

The effect of applications should extend from the endometrium to the uterine parenchyma and peri-uterine tissue, and, if possible, to the ovaries.

The principles of treatment are included in the following propositions:

1. Whatever will raise arterial tension tends to establish conditions favorable to involution of the endometrium.

2. By means of local treatment, endocervicitis and a disposition to venous hyperæmia may be so overcome as to diminish the venous hyperæmia of the internal endometrium, and menstruation may be established and effect a cure.

3. By direct local applications to the internal endometrium the effects to be expected are (*a*) destruction to a greater or less extent of tissue; (*b*) reflex excitation of contractions in the uterine wall, as well as of the muscular fibres in the broad and other ligaments; (*c*) in consequence of these effects temporary acceleration of blood through all the utero-ovarian tissue.

4. By destruction of excess of tissue of the endometrium and blood-vessels, opportunity is afforded to modify the growth of the menstrual cycle, and thus to raise the local arterial tension and increase the menstrual flow.

The author of the paper then pointed out the dangers attending attempts to apply these principles, and followed with rules concerning local applications:

1. The time for local applications should be limited to the post-menstrual week; they should not be begun within the ten days immediately before menstruation.

2. The effect of one local application should completely subside before another is made.

3. In cases involving much parenchymatous metritis the applications should be preceded by the use of tents.

The dangers attending the use of tents were then pointed out.

The fundamental principle in the treatment of endometritis is cauterization, the object being to destroy the subinvoluted tissue, so that the new growth will proceed in a more healthy manner.

The relative amount of irritation produced by different caustic remedies was then discussed, followed by reference to complications liable to arise from their injudicious use.

Dr. B. F. Dawson was asked to open the discussion, and said that as he came to listen and not to speak, he would only refer to one clinical point; and, besides, the paper was so extended and so exhaustive that an attempt to discuss it in detail could not be entertained at that late hour.

With reference to pain, the author of the paper had stated that in ovarian dysmenorrhœa it *preceded* the flow, and was relieved when the flow was established. Physiologically and pathologically this might seem to be correct; but he had seen—perhaps he might stand alone in the opinion—cases in which he was unable to diagnosticate anything else except ovarian dysmenorrhœa, and yet the pain persisted throughout menstruation.

Dr. Paul F. Mundé said he was glad to hear one of the propositions laid down by the author of the paper, namely, that endometritis originates in two conditions, which he thought had heretofore been insufficiently pointed out. First, endometritis originating in *menstrual* subinvolution; and second, endometritis originating in *puerperal* subinvolution.

He was confident that a large proportion of cases originated in one or both of these causes; because in these cases the uterine canal is patulous, the os gaping so as to admit a large-sized sound up to the fundus without difficulty, and often without pain, and with no other particular symptom except a slight flow of blood, which is, in so patulous a uterine canal, one of the symptoms of chronic endometritis. The importance of carefully appreciating this fact he regarded as evident, because it will lead to earlier treatment of the case than is the general rule, and consequently to a quicker cure of the patients than must otherwise be effected. The longer the catarrh lasts the more difficult it is to cure, or even to effect temporary improvement.

Another point is the dependence of peri-uterine cellulitis and peritonitis upon uterine catarrh. He had no doubt that in a large proportion of cases pelvic cellulitis depends upon irritation extending directly from the endometrium to the neighboring organs. Therefore if we wish to cure a case of recurrent pelvic cellulitis or peritonitis, we must remove the inflammation from the surrounding tissues, and also the condition which originated it, namely, the chronic endometritis. But it is not always safe to treat this cause of parametritis, and it is often better to let the endometritis alone than to run the risk of re-exciting its consequence, the peri-uterine inflammation.

The author of the paper had noticed that pelvic peritonitis originates more frequently from the fundus, or is transmitted from the Fallopian tubes, than from irritation brought to bear upon the cervix. Dr. Mundé thought he had seen more cellulitis and peritonitis produced by irritation of the cervical mucous membrane below the internal os than from irritation of the endometrium above it. He believed that the connection between the lymphatics of the cervix and the parametrium is much closer than from the uterine cavity proper to the parametrium.

The same would hold with regard to ovaritis. When there is the slightest sign of enlargement or tenderness of either ovary, he always hesitated to treat the endometritis by local applications, and always followed the plan of reducing the inflammation of the ovary first, before attempting to treat the endometritis, whether corporeal or cervical. There was one symptom of endometritis which had not been mentioned, and which he had encountered rather frequently. He had already stated that the uterine canal would be found gaping, but besides that there is *erosion* of the external os. This he had seen in virgins, in women who had not borne children, and also in parous women, and it is due to the excessive discharge of mucous secretion from the endometrium, and therefore a sign of chronic endometritis.

With regard to fundal tenderness, he thought it was equally a sign of areolar hyperplasia, or any enlargement of the uterus, as of chronic endometritis.

The statements concerning the etiology of flexions was a very plausible one, and one to which he could heartily subscribe. He was quite sure he had seen cases in which there was decursus of the uterus, where the cervix rested

upon the floor of the pelvis, and where there was nothing pathological in either the ovaries or the ligaments to account for it, but where there had been chronic endometritis extending over a period of seven years, and to that the downward displacement of the uterus was undoubtedly due.

The theory of transmission of irritation through the round and other ligaments, causing them to contract and produce a respective displacement was very ingenious, and seemed quite plausible.

With regard to treatment, which really interested the general practitioner most, it was well to prevent the disease; but when it was present the primary object was to cure it, and yet this is not easily done. In the majority of cases treatment is only temporarily beneficial. So far as general treatment is concerned, measures should be employed which increase pelvic circulation, and tend to remove the hyperæmia of the pelvic organs.

But as regards local treatment, he wished to be distinctly understood that corporeal endometritis should be treated from the fundus downward. Cure the fundus first before expecting to cure the cervix, simply because the corporeal discharge will keep up the local infection of the cervix until it is arrested.

He believed that the stronger the remedies used the better; the best remedy is the severest remedy, taking into consideration all precautions in its use. In all chronic cases of hyperplasia of the mucous membrane the *dull* curette is a remedy not at all to be despised. It is a safer remedy, is quite as easily applied, and certainly is as efficient in the beginning as the stronger caustics, like nitric acid. His usual plan when the catarrh is very chronic and the endometrium is hypertrophic is to remove a portion of the thickened mucous membrane with the curette and then to apply a caustic, and if it was a bad case he did not hesitate to apply strong nitric acid. If not so bad, he used iodized phenol, or compound tincture of iodine, or iodoform, etc.

As a rule he had not found it necessary to first dilate the uterine canal, and did not regard it as safe to attempt to do so when there was evidence of para-uterine inflammation.

The length of time treatment will be required will depend upon how long the disease has existed. Certainly it will need to extend over a number of months. With regard to frequency of applications, he did not apply nitric acid oftener than once in two weeks, perhaps not oftener than once a month. The best time for making the local applications is shortly after the cessation of a menstrual period.

The possible occurrence of pregnancy while the patient is under treatment (as illustrated by a case recently seen by him of pregnancy after three applications, the patient having been sterile during her four years of married life) encourages the use of local measures, as pregnancy is perhaps the best means of curing the endometritis, provided care is taken to examine the patient before her getting up after delivery, and, if necessary, applying local astringents or caustics at this, the most favorable time for a cure, if such measures seem indicated.

Dr. W. Gill Wylie complimented the author of the paper and then directed attention to a few points which had not been mentioned. The relation which salpingitis, or any disease of the Fallopian tubes, sustained to endometritis he regarded as very important. Many cases were incurable on account of the associated disease of the Fallopian tubes. Many diseases which were innocent while restricted to the uterine cavity might become incurable when they reached the tubes.

Besides this, and it was very frequently overlooked, peri-uterine inflammation occurred much more commonly than was usually supposed.

Again, the influence of certain well-known poisons had not been mentioned. He was satisfied that specific disease was by no means an uncommon cause of endometritis, which was intractable and in many cases the cause of a salpingitis which could not be cured, except by removal of the tube.

With reference to treatment, Dr. Wylie thought that in acute endometritis, especially the specific, any local treatment at least was very dangerous; and that the best plan was to let the patient very much alone.

He would always lay more stress upon the preparatory treatment, and wait until the subacute stage had been reached, and treat the endometritis by applications to the vagina. He favored the local use of glycerine and alum applied on cotton-balls placed in the vagina.

With regard to dilatation, he did not agree with Dr. Mundé, but thought that in almost all cases proper intra-uterine treatment could not be effected without dilatation. Besides, the cases which Dr. Mundé would treat by applications within the uterus, he would rather treat by the use of the application of glycerine and alum to the vagina first, and dilate the uterine cavity afterward if necessary. He regarded drainage as an important feature of the treatment, and when the case was in the subacute stage he did not hesitate to dilate slightly, but sufficiently to admit a small silver *tube* through which an applicator could be passed to the fundus of the uterus. He agreed with the author of the paper in the statement that local applications are generally made too frequently. He used iodoform upon sponge-tents when they were employed, and also sprinkled all tampons quite freely with the same remedy, because it prevented decomposition. The point regarding applications ten days before menstruation, was new to him, but he was inclined to regard it as an important one.

Dr. Putnam-Jacobi, in closing the discussion, said that in those cases of endometritis which occur in multiparous women, even with catarrh and exquisite irritability of the uterus, one of the characteristic conditions was the tight contraction of the internal os, and it was in such cases, in which she did not assume there was any enlargement of the uterus, that Dr. Mundé had not quite got her idea concerning the homology between menstrual and puerperal subinvolution. *Menstrual* subinvoltion does not involve the parenchyma of the uterus at all, but the endometrium, perhaps the blood-vessels, so that there is simply a congestive endometritis, which is the starting-point of many other troubles that subsequently exist.

The one idea of the paper embraced a consideration of the *homologous* affections. The specific condition mentioned by Dr. Wylie belonged in the *heterologous* affections, and had been fully considered under that head in the other part of the paper, and so also with regard to affections of the Fallopian tubes.

With regard to prognosis, which Dr. Mundé regarded as not very promising at least, Dr. Jacobi thought it depended considerably on the nature of the patients as well as the circumstances by which they were surrounded. Most cases of internal endometritis required more or less constant treatment—with the interruptions defined by the rules—during from one to two years. However, if this was carried out with due attention to *all* the requirements of the case, a cure might confidently be expected; and even where ovaries were prolapsed and somewhat enlarged, their symptoms might be allayed. Cases of salpingitis, or chronic peri-uterine abscess, were not included among the curable complications of endometritis, and were probably only curable by Tait's operation.

The Academy then adjourned.

The Medical Women of Philadelphia.—What the Code has been for the New York County Medical Society, the Medical Woman Question is for that of Philadelphia. The ladies, it is said, have adopted the policy of presenting themselves as candidates, one at a time, and as this brings a new applicant at each meeting, it forces the opposition to turn out regularly every week, in consequence of which the attendance is phenomenally large.

Correspondence.

OUR LONDON LETTER.

(From our Special Correspondent.)

THE INCREASE OF CANCER — EPIPHYSITIS — THE TERCENTENARY OF THE UNIVERSITY OF EDINBURGH — THE SMOKING FESTIVAL — PROFESSOR RUTHERFORD AND HIS PECULIARITIES — MR. ROYLE.

LONDON, April 26, 1884.

AT the last meeting of the Medico-Chirurgical Society, a paper by Mr. Jessett was read, entitled "An Inquiry into the Cause of the Increase of Cancer in England and Wales." Mr. Jessett contends that the increased death-rate from cancer, as shown in the last yearly report of the Registrar-General, is not merely due to more accurate diagnosis, but actually represents an augmented death-rate from this cause. Mr. Jessett remarked that cancer was more prevalent in low-lying, damp localities; but heredity, increased by intermarriages, had probably a good deal to do with the greater mortality from cancer in the "fen" districts which he pointed out. He also thought mental worry might predispose to cancer.

In the discussion which followed both Dr. H. Snow and Mr. H. Cripps disputed the influence of heredity as a causative agent. Mr. Cripps attempted to show from statistics that cancer in the parent did not have any appreciable influence in predisposing the offspring to suffer from it.

At the same meeting Mr. Macnamara read a paper on epiphysitis, by which term he meant the diffuse ostitis of children or osteo-myelitis during the period of growth. He also used the term as synonymous with the phrases "suppurative periostitis" and "acute necrosis." Mr. Macnamara found himself in the somewhat unenviable position of having no one to support his position. In a rather sharp discussion which ensued on the reading of the paper, all the speakers fell foul of the author and his conclusions. Mr. Holmes led the van by remarking that the term "epiphysitis" was inaccurate, even if we allowed it as meaning an inflammation of the epiphyseal cartilage. If this cartilage had been destroyed it was difficult to understand how the bone was reproduced and the limb grew. Mr. Barwell, Mr. T. Smith, and Mr. Gant also assailed Mr. Macnamara's views.

The Tercentenary Festival of the University of Edinburgh has, on the whole, been a great success. This has been largely due to the number of distinguished men from various countries who attended. The concluding item of the entertainments seems rather droll. This was a students' concert in the drill hall. Smoking was permitted, and as about two thousand were present the atmosphere could have been none of the purest. Fancy two thousand pipes going simultaneously! Could a German university excel this? Songs were sung, speeches made, and stories told by Sir Stafford Northcote, Sir Lyon Playfair, Professor Rutherford, and others. To those who know the last-named professor, and have seen what a martinet he is in the lecture-theatre, the idea of his taking part in such a gathering will be inexpressibly ludicrous. Dr. Rutherford is indeed *sui generis*. In his lectures (which, by the bye, are, from a scientific point of view, very good, or, as one of his pupils told me, "splendid") he persists in pronouncing certain words according to laws of his own. Thus, in speaking of the columns of the spinal cord, he pronounced the word "column" as if it were written "collume" rhyming with "fume." The class made merry, whereupon the lecturer waxed wrath and "ramped" out: "You may think it is *collumn*, but I say it is *collume*."

Mr. Royle, the medical attendant of the late Prince Leopold, has been made a C.B.

EXERCISE FOR WOMEN AS ILLUSTRATED IN CIRCUS-RIDERS AND GYMNASTS.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR: It has been my good fortune to become acquainted with several of the leading women performers in the circus which has just left the city. My attention was directed toward the influence of their work upon the general health, and upon the menstrual and the child-bearing functions. The riding, the leaping, and the jumping at least do not influence pregnancy unfavorably. Temporary suppression of the menstrual flow sometimes occurs during these exercises, and its duration tends to be prolonged; excessive loss was not in any case found. The non-existence of uterine disease could not certainly be ascertained; it appeared, however, probable, from the absence of pelvic discomfort, from the absence of leucorrhœa, and from the excellent general health.

I had the women under observation during a number of weeks without finding any evidence of especial fatigue in their faces. They all eat and sleep well.

No. 1 is a bareback rider, doing principally the hurdle act or jumping from the horse to the ground, and from the ground to the horse while in motion. She is about thirty-two years of age, is five feet in height, and weighs one hundred and twenty pounds. Her chest measures thirty-two inches at the end of expiration, and thirty-four and one-half inches at the end of inspiration. She commenced to menstruate at sixteen years; was married for five years, but never conceived; has always had dysmenorrhœa, and has been told that she possesses a congenital uterine defect. She works when menstruating. While performing she does not feel pain, and thinks that there is no flow during the fifteen minutes that she is in the ring. Her dysmenorrhœa is no less when idle than when employed. She has been in the business for fifteen years.

No. 2 is a bareback rider. She rides standing, and jumps through the hoops while the horse is in motion. She takes fifty jumps in six minutes. She is about thirty-five years of age. She commenced to menstruate at sixteen years, and was married at seventeen years. Previous to her marriage she had pelvic dysmenorrhœa. She now has headache previous to the flow. She flows five days and works throughout. The headache is suboccipital and temporal; it is just as bad when she is not employed. Though previously dizzy, her head clears when she enters the ring. She does not think that during the performance there is any flow. Her chest measures thirty-two and one-half inches at the end of inspiration and thirty-one inches at the end of expiration. She is five feet in height, and weighs one hundred and twenty pounds. She has been in the business since seven years of age, and has been pregnant four times. The first time she miscarried at three months after a fall; the second time she rode up to the eighth month, and the child was delivered at term. It weighed nine pounds; the third time she miscarried at six months after a fall; and the fourth time she again rode up to the eighth month, and was delivered at term. I saw this child, it is a healthy little girl of nine years. Her husband died shortly after the birth of this child. She rode at one time four weeks and at another time two weeks after her confinement. Neither of these women has leucorrhœa.

No. 3 is also a rider, she performs all of the feats of the other two. While No. 1 can exhibit only chest and scapular muscles, and No. 2 only muscles of the legs, No. 3 has the muscles both of the trunk and of the lower extremities strongly developed. Her arms are, on the contrary, small and delicate. She is about five feet [illegible] height, and weighs one hundred and twenty-four pounds; her chest measures thirty-three and one-half inches at end of expiration, and thirty-six and one-half inches at end of inspiration. She is twenty-four years old; she commenced her training at seven years of age, in which married at eighteen years. She commenced [illegible] cervix res[illegible]

ate at sixteen years. She never has had any pain, and has had four children. The first child was born at term. It is now alive and well. She rode to the end of the fourth month. The second child was carried to term. It presented by the shoulder and was born dead. She rode to the end of five months. The third miscarried at three months after a fall. The fourth is now seven weeks old. She rode up to the sixth month, and has always commenced to ride from four to six weeks after her confinement. At the time of her present engagement her baby was four weeks old, and she still had a sanious discharge, which ceased after commencing to work. She has recently menstruated, the flow lasting only three days. In this case the flow does not stop while she is in the ring. She says that its duration varies between three and nine days. This woman, cannot nurse her children, and says that the breast collapses when she commences to work. Another rider whom I have seen, with a baby of three months, has an abundance of milk. She rode up to the eighth month. She is now performing, and has the appearance of perfect health. The mother of No. 3 was also a rider, and had six living children. While carrying her third child she rode up to two weeks of term. None of these women ever heard of any one's breaking down in the business, except from surgical injury, such as a broken bone.

No. 4 is an aërial gymnast. She performs with rings and ropes twenty-five feet from the floor. She is twenty-seven years of age, with the appearance of twenty-two. She commenced her training when eight years of age. She commenced to menstruate when fourteen years old. The discharge always has been scanty. She has no pelvic pain, but she has sick and dizzy headaches before the flow commences. She says that the headache leaves her when she "comes before the public." Also that when very much excited the flow stops. She has been married four years. A child was born during the first year of her marriage. She worked through the third month. The child was born healthy, but died later of intestinal disease. Since that time menstruation has been irregular, and she supposes that early miscarriages have occurred. She has no leucorrhœa; is five feet two and a half inches, and weighs one hundred and twenty-eight pounds. Her chest measures thirty-six inches at the end of expiration, and thirty-eight inches at the end of inspiration. She does not think that the women performers break down.

No. 5 is a trapeze performer. She is twenty-five years of age, and has been in the business nine years only; is four feet eleven inches; weighs ninety-five pounds; has been married nine years, and has had a number of miscarriages of from four to six weeks. Otherwise menstruation is regular. She flows from six to seven days, but has no special pain. The flow stops while she is working. She has a constant vertical headache, which she attributes to a fall, and she has a backache during most of the time; but was struck in the back with an iron bar. She has no leucorrhœa. When performing she eats and sleeps well, and at other times is an invalid. She says that the women sometimes break down from climatic exposure, but seldom or never from uterine disease. As a rule the performers marry in the profession, and they marry young.

In the above we have collected the histories of five riders and two gymnasts. These histories differ mainly in the fact that the gymnasts have early abortions without extraordinary cause, while the riders have never miscarried except as the result of a fall. Their routine work has not had this effect. Concerning the routine work of the gymnast this cannot certainly be affirmed. Gynecological traditions allow us to believe that the strain, the actual displacement which is implied by hanging the weight of the body from the hands or from the toes, and by other stretching manœuvres which they perform, is a sufficient cause for the dislodgement and expulsion of the ovum at an early date. It must be taken into consideration, however, that the gymnast does not wear the skirt nor the corset. She has no way to disguise her figure, hence the temptation to provoke abortion must be much greater for her than for the rider, who can exhibit through the eighth month without detection. I do not therefore unhesitatingly accept as a fact that the gymnast abortions are due to her work, though such a presumption might very properly be made.

The riders' miscarriages always followed a fall. This is according to ordinary experience; but the fact that they do not more frequently miscarry remains to be accounted for. That the woman who during pregnancy takes fifty leaps in six minutes, who supports herself at tiptoe upon the flying horse, who leaps from the horse and to the horse while it is in motion, and who is so excited by her position as not to be conscious of headache, nor even of uterine cramp, that this woman can be delivered at term of a healthy child, and that she can nurse that child is phenomenal. The explanation is probably to be found in her habit of life. The rider commences her career as a child. The nervous system of the woman exhibiting during pregnancy is not called upon to realize any new shock, while it is but probable that the muscular attachments of the uterus have by her training been rendered more than usually firm.

While this work does not appear to affect pregnancy deleteriously, the same cannot be said of menstruation. Dysmenorrhœa of some sort is the rule. Excluding No. 1, who has a congenital defect, all of the performers with whom I have talked either have headache or a prolonged flow, or both. It is suggestive that the three who have headache have suppression during work. Both the suppression and the headache are probably vaso-motor in their origin. Women who menstruate scantily are peculiarly subject to this influence. Among the lower classes to bathe or to change the clothing commonly causes the menses to cease, with a coincident fulness in the head; while the menstrual discharge which has been suppressed tends afterward to return, and to be prolonged beyond the usual time. With the circus women the eye of the public, and possibly the effort of performance, appear to be the exciting causes. Whether the temporary suppression from overwork is injurious, I am not prepared to say. In the case of the circus women it appears to do no permanent harm. Excepting No. 1, we have found in them no evidence of uterine diseases.

The influence of the work upon involution appears to be good. Three women with whom I have talked have commenced work from four to six weeks after their confinement without injury. One of them recently commenced with a sanious discharge. I have particularly watched this woman, and have seen her vigor of movement and the color of her lips progressively improve. I have already said that the flow ceased very soon after she commenced to work; I have also alluded to my theory that the uterine attachments—the ligaments—are, in these women, more than usually firm. This has been my experience in other cases where the women were actively engaged in varied muscular work.

I have spoken of the fact that the general health was good. The chest development was very fine, the measurements were taken without clothing, and the tape was tightly drawn. Thirty-four, thirty-six, and thirty-eight inches is an extraordinary measurement for a woman weighing less than one hundred and thirty pounds. With a superb bust curve, in none of them was the breast large. The effect was obtained by the ribbing out of the thorax, which renders even a small breast prominent. It is not generally known that a handsome figure may be thus acquired. Women seek after nostrums to develop the breast, and even men ascribe the American flatness to a non-development of the mammary gland.

Exercise as a health-giver and as a beautifier must be varied in form. Walking does not develop the chest. No. 2, whose performance is confined to standing and jumping upon a level, presents only a chest measurement of

thirty-two and a half inches, while Nos. 1, 3, and 4, who exercise also from the shoulders, present measurements of thirty-four, thirty-six, and thirty-eight inches. It is desirable also that the exercise should be commenced early in life. Nos. 3 and 4 commenced when children of seven and ten years; No. 1, who commenced at sixteen, does not have pain, though her exercise is of quite as good a kind. This woman also is the only one who unquestionably has uterine disease.

But little can be done after the woman is grown. With the first attempt the already heavy uterus is displaced, on account of the weakness of its supports. The system must be commenced in the child. Let the girl have the same out-of-door liberty as the boy. Let her play ball, climb, and swim, and skate. Let her give up piano practice and take her musical education in the form of singing, and let her school hours be few. In other words, give the girl a chance.

The question as to what can be done after the woman is grown, requires more thought. As I have said, walking is not enough, and gymnastics as a system are not generally understood, while the caution which is necessary in undertaking unusual work makes one hesitate in regard to advising them. Instruction by a competent authority is needed. We understand that the alumni of Vassar are attempting to supply this want by a chair for physical culture in their college. This effort, if successful, must have an influence for good.

S. E. Post, M.D.

April 19, 1884.

HAS KOCH DISCOVERED THE CHOLERA-BACILLUS?

To the Editor of The Medical Record.

Sir: In an editorial of The Record of April 12th you discuss the sixth report of the German Cholera Commission. Your conclusion is that "Dr. Koch has found a bacillus, but he has not found, for science, the cholera-bacillus." You also intimate that, as far as the report shows, those who would believe are obliged to take for granted the conclusion implied in that document as to the nature of the bacillus in question. You state it thus: "The great confidence felt in the carefulness and skill of the distinguished investigator, however, will lead many to accept his judgment, but such acceptance must as yet be based more on *faith* (the italics are mine) than sight." For the word sight I will use the broader term demonstration, and at the same time point out what I conceive to be an error in your application of the term faith. Since I share in the general confidence in Dr. Koch's carefulness and skill, I am willing to trust him for the truth of the facts he presents; but certainly I cannot be expected to accept his judgments on faith.

Now, in your editorial you deny that Koch has given us a demonstration of the existence of a cholera-bacillus, at least such a demonstration as science requires. Allow me to offer an affirmative rejoinder, and before doing so, to ask, what does Koch claim to have proved? If I have read the report understandingly, what it claims implicitly is that there is a germ peculiar to and constantly present in cholera, and that there is a strong probability that this germ is the cause of the disease. Surely nothing in the report can be construed into meaning that the comma-bacillus has been shown *absolutely* to be the cause. Now, for everyone—for those opposed to, as well as for those in favor of the germ theory—the question resolves itself into three mutually exclusive propositions: 1, This bacillus is accidentally or intercurrently present in cholera; 2, the germ (comma-bacillus) is the cause; 3, being constant, and not accidental, and not being the cause, its presence is accounted for on the theory that its origin and growth are favored by the peculiar conditions of the disease, viz., heat, moisture, and a virus, or what not, peculiar and specific in character. That the comma-bacillus is not accidental, I think few who have read the report will deny. If nothing else has been proved by the commission, I am sure this has. In order to establish the second proposition absolutely, it is obvious that the demonstration requires for its essential element the fact that the cause is antecedent to the disease. Inoculation of the lower animals with the germ, and the germ alone, and production of the disease thereby, is the only means available to investigators; but this has not, and in all probability will never be done. Therefore the highest proof that can be expected is that of probability, greater or less strong, and this much I think I can show has been thus far achieved. One fact in the report, which you have overlooked in your article, is very significant, and that is, that the cholera-bacilli are "found to have multiplied in a most extraordinary manner" in linen soiled with choleraic discharges after having been kept in a moist state for twenty-four hours. Here is an example of germ-development which seems to me to dispose of the hypothesis embodied in my third proposition. But to satisfy those who disagree with me in this last assertion, I can afford to grant, for argument's sake, that my interpretation is unsound.

In such case I am free to appeal to the fact that in pure cultures of the bacillus in question we have an example of development independent of the aid of the before-mentioned conditions. On this latter fact I cannot insist too strongly. For when in a given disease a germ is found in constant association, and at the same time absent in other diseases, even of a similar nature, and where the germ can be isolated and cultivated, there, I maintain, is the strongest probable proof that the germ holds a causal relation to the disease—proof next to absolute demonstration. Since these conditions are shown to exist in the disease under discussion, we are, it seems to me, obliged to accept as most highly probable the conclusion contained in my second proposition. Furthermore, Koch's claims are well fortified by the analogical method. In three diseases—malignant pustule, relapsing fever, and tuberculosis—bacteria as a cause have stood the crucial test. From the insusceptibility of the lower animals to many of the diseases that afflict mankind, the utmost the most sanguine investigator can hope to prove is greater or less probability, such proof being based on absolute demonstration in a few cases.

So far we have scarcely crossed the threshold of the mysterious temple of science in our search after facts of etiology. It were too much to expect that even in our time we will reach as far as the interior. From what has already been accomplished we can with some certainty foretell what the end will be—a translation of the present system of medicine to a sphere of almost another order. There are many ultra-conservatives, however, who will treat this assertion with incredulity, and perhaps even ridicule. To them the revival of the germ theory means nothing but a repetition of history, having its rise and fall as other historical events have had. It must not be forgotten, however, that the theories of the past had their origin in speculation; now they are being tested by the methods of exact science, and we have the satisfaction of at least knowing that hereafter the question will become settled forever. The theory must stand or fall by the present scientific methods.

Thomas J. Kearney, M.D.

107 Lexington Avenue.

THE OLD CODE AND THE NEW.

To the Editor of The Medical Record.

Sir: The following formula of a method proposed to raise the dignity of the medical profession may be worth trying: Subscribe to the plain letter of the [illegible] Code of Ethics of the American Medical Association [illegible], and then go as you please.

[illegible] Codex.

Army and Navy News.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, United States Army, from May 4, 1884, to May 10, 1884.

WEBSTER, WARREN, Major and Surgeon. Granted leave of absence for six months from April 29, 1884, on account of sickness. S. O. 103, par. 5, A. G. O., May 3, 1884.

STERNBERG, GEORGE M., Major and Surgeon. Now at Governor's Island, New York Harbor, ordered to repair to this city (Washington, D. C.) to represent the Medical Department of the Army at the annual meeting of the American Medical Association, to meet on May 5, 1884, and on adjournment of the Association to return to Governor's Island. S. O. 103, par. 2, A. G. O., May 3, 1884.

Official List of Changes in the Medical Corps of the U. S. Navy, during the week ending May 10, 1884.

GRAVATT, C. U., Passed Assistant Surgeon. Detached from Naval Hospital, Chelsea, and ordered to U.S.S. Michigan.

HARMON, G. E. H., Passed Assistant Surgeon. Detached from U.S.S. Michigan, and granted leave of absence.

EDGAR, J. M., Assistant Surgeon. Ordered for examination preliminary to promotion.

Medical Items.

CONTAGIOUS DISEASES—WEEKLY STATEMENT.—Report of cases and deaths from contagious diseases reported to the Sanitary Bureau, Health Department, for the week ending May 10, 1884:

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Cases.								
May 3, 1884.....	3	14	81	5	99	35	0	0
May 10, 1884.....	6	5	100	3	102	45	0	0
Deaths.								
May 3, 1884.....	0	5	14	4	14	16	0	0
May 10, 1884.....	0	2	18	2	7	20	0	0

DOSING AN ELEPHANT.—One of Barnum's secular elephants, "Allah," was attacked with enteritis while in Cincinnati. Dr. George W. Bowler, V.S., was called in, and relates his experience in *The Journal of Comparative Medicine*. The diagnosis being made he prescribed and administered the following liberal dose: lard, eight pounds; linseed oil, one gallon; tincture of opium, one pint; spirits of nitrous ether, one pint; syrup, one quart. The lard and oil were first mixed, then the other ingredients added. The trunk was raised above the head and the mixture poured down the throat through a large metal tube. The animal recovered.

REMOVAL OF WARTS.—Dr. Et. Guénot reports (*Bull. Gén de Thér.*) that he has removed a large crop of warts, occurring on the hands of a patient by giving daily a ten-grain dose of calcined magnesia in the morning before breakfast.

TINCTURE OF BELLADONNA FOR CHLORAL POISONING is highly recommended by Dr. J. Mackenzie Booth in *The Lancet*.

A BULLET THROUGH THE BRAIN—RECOVERY WITHOUT PARALYSIS.—Dr. W. P. Hartford, of Beetown, Wis., sends us the history of a somewhat rare case. A young man, aged thirty, was shot in the face, receiving the full charge of a shot-gun at a distance of fifteen yards. His head was struck with seven No. 4 shot and two bullets. Dr. H. writes: "One bullet penetrated the frontal bone three-fourths of an inch above the right supraorbital ridge, and I think it passed nearly if not quite through the brain; it cut a clean hole through the bone. We probed the wound about an inch and a half; it went straight into the brain, and there was some of the brain substance on the ground where he fell when shot. There was another bullet-wound just under the right eye that penetrated for about an inch. The course of the bullets was from right to left. The patient was unconscious, and then somewhat delirious for a few days. He finally recovered entirely, except for a feeling of numbness in the right hand and leg."

SALICYLATE OF SODA IN INCONTINENCE OF URINE.—Dr. B. J. Bristol, of Webster Groves, Mo., sends us the following very instructive histories: "A. B——, male; mulatto; aged twenty-one years, of good habits, temperate, does not use tobacco; does not know the time since infancy when he has not been troubled with incontinence of urine, attended with pain in the back, in the region of the kidneys, the pain relieved by micturition. Has always been obliged to get up at night to micturate from one to two or three times, being awakened by the pain in the back. Appetite good, general appearance healthy. Examination of urine showed nothing abnormal, examined especially for albumen and sugar. Ergot in full doses three times a day produced no impression. Salicylate of soda, twenty grains every two hours till pain was relieved, then two grains three times a day, has apparently cured both the pain and enuresis. Still have him under observation. C. D——, male, aged eighty-two; habits active, always temperate; never had any severe illness; has for some time had incontinence of urine, night and day, with pain presumably about the neck of the bladder; pain constant, somewhat relieved by micturition; no albumen; no sugar; occasionally mucus. Prescribed salicylate of soda ten grains every two hours till pain was relieved, then ten grains three times a day. After sixty grains had been taken the pain in the bladder was relieved and the incontinence was very much better, so much so that when he reported to me he had not taken the medicine for two days."

POISONING BY ACONITIA; SEVERE SYMPTOMS FROM ONE-FORTIETH OF A GRAIN.—The following history, sent us by Dr. Leroy F. Brooks, of Norwich, N. Y., is of great importance, in view of the very considerable extent to which the dangerous alkaloid aconitia is now being used. Dr. Brooks writes: "A lady, twenty-two years of age, on the morning of April 2d, took five McKesson & Robbins' pills of aconitia, of $\frac{1}{200}$ grain each, supposing them to be quinine. Within a few minutes she felt numbness and prickling about her tongue, lips, and face, and passed into a half-narcotic condition, in which she supposed she was dying, yet did not feel power enough to call others to her aid. Within half an hour from the time of taking the dose she commenced vomiting, but could not tell whether she vomited any of the dissolved pills or not. The vomiting, with severe retching, continued, and the numbness and prickling extended over the entire body; but the friends, when their attention was called to her, considering the symptoms to be due to quinine, had no fears, and did not call medical aid until two hours later. I found her in the following condition: Pulse scarcely perceptible, very irregular, and could not be counted; heart's action intermittent, rapid, and feeble; respiration rapid and shallow, and patient complained of a sense of great weight on the chest and of dyspnœa; entire body very cold, and face and extremities of a dusky, almost purple hue, and face pre-

sented a pinched expression; slight convulsive movements of left side of face, and a feeling as if face was constantly drawn toward left side; difficult articulation; pupils widely dilated and did not react; an almost constant violent spasmodic retching and vomiting, in which, the patient says, 'the walls of the stomach strike together with force.' I at once gave her enemata of brandy and carbonate of ammonia, and used $\frac{1}{8}$ grain of morphia and $\frac{1}{120}$ grain atropia hypodermatically. Within five or six hours the pulse became more perceptible and regular, and pulsations ranged from 140 to 160 per minute; heart still intermittent, but firmer in its action; numbness of extremities diminished, but still existing in a marked degree in tongue and face; pupils smaller; vomiting quieted by morphia, but returns at once when its effects pass off, so that the dose has required repetition every three hours; surface cold; face dusky; respirations better, but dyspnœa still exists; convulsive movements of face subsided. April 3d: Numbness and prickling has disappeared; surface still cold and has marked capillary congestion; pupils normal and react readily; pulse, 140, feeble but regular, and heart's action stronger and without intermission, but increased in frequency by least move of body; vomiting returns if morphia is withheld, and has had $\frac{1}{4}$ grain every four hours; does not retain anything taken into stomach, even when deeply under the influence of the morphia. April 4th: Pulse, 140, stronger. The patient subsequently continued gradually to improve; but it was not until April 12th, or ten days after taking the poison, that she could be considered free from bad symptoms."

Foot and Mouth Disease.—Dr. W. Manlius Smith, of Syracuse, N. Y., writes: "In The Medical Record of May 10th, p. 511, in a paragraph on 'Foot and Mouth Diseases in Kansas,' you ask, 'But how does ergot get in hay?' To this I answer that I have frequently observed ergotized grains on the common quack (or quick) grass, *triticum repens*. I remember also, several years ago, noticing and collecting ergot from some of the coarse grasses on the banks of the muddy stream that winds through Jersey City flats. It is further well known that some of the ergot of commerce is furnished by the wheat-plant, the ergotized grains of this plant being shorter and blunter than those of the rye. The size and shape of the ergot varies in the different grasses on which it occurs, but its general appearance and internal structure is so nearly alike in all that it is readily recognized as ergot. There is no improbability in the statement that Kansas hay contains ergot."

A Case of Extra-uterine Pregnancy—Operation—Relief—Remarks upon Etiology.—Dr. Charles E. Davis, of Eureka Springs, Ark., writes: "A married woman, aged thirty-five years, had two children, the last one nine years ago. In 1877 had a uterine polypus, which was removed; in June, 1882, partial insolation; in August, dysentery; in October, menses ceased. During the next seven months she suffered from severe pains in the pelvis, and irregular bloody and watery discharges. A tumor was felt in the left inguinal region. A return of the polypus was suspected." Dr. Davis was called in April 11th, and found the tumor present, the uterus enlarged and empty. A second examination detected fœtal movements, and the diagnosis was established. Two days later, the patient had a severe chill and several rigors, with a great deal of pain. A gangrenous odor was detected. "On examination," continues Dr. Davis, "it was found that the fœtal tumor had been forced at least one and a half inch outside the vulva, carrying the vaginal wall on the left side, and so very tense was it that it was black and evidently rapidly becoming gangrenous. Knowing no time could be safely lost, I proceeded at once to operate. Having no precedent, I was obliged to advance on general surgical principles, keeping in mind (1) cleanliness and disinfection, (2) hemorrhage, (3) protecting peritoneal cavity. After thoroughly cleansing and disinfecting with a five per cent. solution of carbolic acid, I carefully pointed and sharpened a fore-finger nail, believing that the vaginal wall so tense could best be divided with it. I soon succeeded in reaching the tumor, and enlarging the opening almost bloodlessly. I soon delivered, in a partially decomposed state, a small, poorly nourished four and a half or five months' fœtus, and that without the admission of any air into the cavity. I instituted careful and steady traction upon the cord for some time, but finding it impossible to deliver the placenta by any means compatible with safety from internal hemorrhage or inflammation, I decided to secure the cord, disinfect the cavity, provide for drainage, and rest matters for the time. This I did. The next day the placenta was removed. The wound healed rapidly and the patient made a good recovery." Dr. Davis concludes with the following queries: "What were the etiological bearings of the succession of conditions—1, eight years' inaction of uterus; 2, relaxation from overheat, furthered by overtax and anxiety localized by the dysentery—upon the nervous power of the pelvic organs, notably the Fallopian tubes and their extremities, disabling them from properly passing the ovum on the one hand, or regulating the migrations of the spermatozoa on the other, thus reducing conception from the highest expression of nervous rhythm and vital power to that of a sort of passive accident, as shown by its unnatural location? Whence comes the expulsive force sufficient to stop circulation so rapidly in so vascular and mobile tissue as the vaginal wall?"

Death from Chloroform.—Dr. G. E. Goodfellow, of Tombstone, A. T., sends us the following: "In April, 1880, while temporarily in Tucson, I was asked by Dr. Handy of that place to assist him in an amputation by administering the anæsthetic. The case was one of severe compound dislocation of the ankle-joint in a man aged about fifty, who had been on a prolonged spree. The injury had been received three or four days previous to the date of the attempted operation, and amputation was then advised but refused. His condition was extremely unfavorable for operation. The chloroform was administered on a loosely folded towel. I poured about one-half drachm upon the cloth and began the administration. Not more than a dozen inspirations had been taken when the patient expired. Nitrite of amyl and ammonia in conjunction with artificial respiration were used ineffectually. I am not a lover of chloroform, and in this, as in other cases when I exhibit it, used every precaution. The fatal result could have been avoided in only one way, by not using chloroform. I have rarely seen an unfavorable symptom supervene when a mixture of ether and chloroform was used, and the A. C. E. mixture is the anæsthetic I have always preferred, and most frequently use."

Twenty-one Major Operations without a Death.—Dr. Theodore R. Varick, of Jersey City, writes: "In the telegraphic report, in the last issue of The Medical Record, of a paper read by me before the Surgical Section of the American Medical Association at its meeting in Washington, on the 7th inst., I am credited with having performed twenty-one major amputations without a death. This is an error. The correct record is, twenty-one major amputations performed in St. Francis' Hospital, Jersey City, without a death; five in the City Hospital, with one death, and three in private practice, all of which were successful. This makes a record of twenty-nine cases, and one death. Since the paper was written, I have had two cases, viz., a thigh and forearm, which are still in the hospital, but are convalescing rapidly. The points of operation were as follows: Thighs, 16; legs, 5; hip-joint, 1; shoulder-joint, 1; arms, 4; forearms, 4. Total, 31. All these amputations were performed since August 12, 1879. By giving this a place in your valuable journal you will oblige."

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Original Articles.

THE MEDICINAL, MAINLY MERCURIAL, TREATMENT OF PSEUDO-MEMBRANOUS CROUP.[1]

BY A. JACOBI, M.D.,

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IN 1868 I formulated the indication for the performance of tracheotomy in pseudo-membranous croup as follows: "There ought to be no contra-indication when the prominent symptoms are dyspnœa and suffocation. I cannot imagine any complication of croup that would prevent me from opening the trachea when the child is dying of suffocation. This is so plain to my understanding that I should consider it even a cruelty, in many cases, to refuse tracheotomy, when I knew beforehand that the child was surely going to die from other causes. Whoever has seen children die of croup, fully conscious, gasping, raving for air until they are slowly strangled in your arms, under your eyes, will bless a proceeding the consequence of which will at least be an easier death in most cases. Nor do I acknowledge that tender age, that under two years, ought to be held up as contra-indication to the performance of the operation" (*Journal of Obstetrics*, vol. i., May, 1868, p. 49). And on page 57: "While I admit that with symptoms of general diphtheria complicating a case of laryngeal diphtheritis, called membranous croup, the prognosis of the operation becomes more doubtful, I lay stress on the fact that even in such cases the only indication for the operation rests in the local obstruction. For it is easily understood that while general diphtheritic poisoning with insufficient obstruction does not indicate tracheotomy, it is just as plain common sense that suffocation from obstruction of the larynx complicated with a constitutional affection requires the only possible relief just as urgently as suffocation from obstruction of the larynx without such a complication. Seeing a person suspended by the neck and being strangled, we should hardly investigate into the propriety of cutting the rope from the point of view that the sufferer might be, or is, affected at the same time with tuberculosis, carcinosis, or diabetes." Such are the principles which have guided most of those who have operated. The result has been that Monti could collect 12,736 cases of croup with general diphtheria, 3,409 of which (26.7 per cent.) were saved by tracheotomy. Those indications for tracheotomy in croup are still valid. I did not discover them, but I understood them and acted in accordance with them almost ten years previous to my writing. At that time I was not at all in the fashion, just as little as those who frequently operated before me, viz., Drs. von Roth, Krackowizer, and Voss. On the contrary, the question was seriously asked if Dr. Jacobi did not cut *altogether too many* throats. I refer to that fact because it is always instructive to turn to the history of theories and facts in our science and art. Now, since that time the drift of public opinion has entirely changed. What I insisted upon as a necessity, viz., that amongst the few operations every general practitioner ought to know, and be prepared to perform any time, tracheotomy was the foremost, has been appreciated since to its full extent. I feel certain that hundreds of practitioners in this city have performed tracheotomy, or are capable, willing, and anxious to perform it. The extent of this change is very great indeed. One of the proofs is certainly the fact that renowned gentlemen, who are identified in the respectful opinion of the professional public with what has been called internal medicine, commenced and carried on an instructive and valuable discussion on the surgical treatment of croup, in this very hall. The unity of medicine cannot be better proven than by that fact, and in order to prove my appreciation of the same, and of the necessity of keeping together the disjointed members of the body medical, which threatens to be dissolved into soulless and spiritless specialties, I may be permitted, after having performed four hundred or more tracheotomies myself, and witnessed several hundred besides, to claim a little attention for the consideration of some points concerning the medicinal treatment of pseudo-membranous processes in the respiratory organs, which has been given up by very many as well-nigh hopeless.

Two cases of pseudo-membranous croup were treated in my service in Mount Sinai Hospital in the following manner: The patients, one less, the other more than two years old, were kept in a temperature of somewhat more than 70° F., under a tent which was filled with steam and the vapor of turpentine, as I shall detail afterward. They were given besides $\frac{1}{30}$ grain of pilocarpium muriate, according to the method of Guttman. Neither of the cases was or became severe, neither of them was septic. I make that statement because I believe it to be important in regard to the value to be placed upon the recommendations of Guttman in general. Altogether I have not modified my opinion on the efficiency of the drug expressed during the sessions of the American Medical Association of 1881, about eight months after the first article of Guttman, on the efficacy of pilocarpium in croup and diphtheria made its appearance. Its statements appeared exaggerated, the drug was recommended as a specific, no case ever so severe or septic was said to be inaccessible to its healing influence. My first experiments were therefore made with septic cases, both pharyngeal and laryngeal. In every one of them I fully believe I accelerated the fatal termination by hastening cardiac failure. But in a number of cases I do not hesitate to state that the softening, macerating, disintegrating effect of the copious secretion brought about by the jaborandi preparation was quite marked. One of the cases in the Mount Sinai Hospital got well. The other got better, but the pulse became frequent and small, the general strength failed, and the treatment had to be given up after three days. The same results I have obtained in private practice. A child of but a little over a year did not tolerate the debilitating effect of the pilocarpium more than two days, in spite of careful alcoholic stimulation. The final recovery I was always inclined to attribute to two factors, viz.: 1, the macerating effect of the drug; 2, the timely withdrawal of the treatment with pilocarpium, while the rest of the treatment was continued. One case, three years old, I have seen recover with a fair amount of strength after having been imprisoned in a tent four days. A few more had to be discharged from it for fear of fatal exhaustion. My final opinion is, therefore, that the effect of pilocarpium is certainly a powerful one, inasmuch as it increases the secre-

[1] Read before the Section on Obstetrics of the New York Academy of Medicine, April 24, 1884.

tion of the mucous membranes of the respiratory tract and thereby facilitates the maceration of the pseudo-membranes, but that its debilitating effect must be watched and counteracted constantly and necessitates the interruption of its use in a great many cases.

In many, steam inhalations have been a powerful adjuvant in the treatment of croup. My opinions, as expressed in my "Treatment of Diphtheria," p. 178, have not changed these four years. I then said, in regard to their administration:

"Quite remarkable effects have been expected of, and claimed for them. It is true that pseudo-membranes, like everything else, become softened by the warm vapors. It is also probable that steam increases the secretion of the mucous glands, and thereby possibly loosens the overlying membranes and favors their removal, but it must not be forgotten that it also softens the healthy tissues, and that this change in character enables the poison, whatever be its nature, to penetrate more deeply into them. These two hypotheses must be kept in mind when, in any case, the question of the employment of steam arises.

"Steam for the purpose of softening the tissues and of provoking the secretion of mucus and suppuration has been used to a considerable extent; in fact, in England and America it constitutes an important part of the treatment of diphtheria of the larynx. The patient must inhale it directly from a vessel, or in a tent which is more or less closed, or breathe the atmosphere of the room after it has been saturated therewith. For the latter purpose, water is kept constantly boiling, or lime slaked, or red-hot stones put in water from time to time. The results from this procedure in diphtheria of the larynx have not always been pleasant. I have repeatedly had the joy of seeing children with croup become less cyanotic after their removal from an atmosphere of vapor, and I can readily see that pure atmospheric air would be more agreeable and wholesome to a child with stenosis of the larynx than an atmosphere laden with steam.

"I have seen cases of fibrinous bronchitis getting well, when I had every reason to attribute the recovery to the persistent use of steam. I have known a baby locked up in a small bath-room, with one window, the hot water running persistently for days, filling the room so as to produce a constant fog, and make every person in the room drip. The result was highly gratifying; the baby got well, and so did another, whom I had the good fortune to benefit by my experience in that case. Again I insist, steam will improve, steam will impair. Individualizing is a great art. In regard to the steam therapeutics, it is, however, not so difficult. Its object is to soften, but principally to increase the secretion from the mucous membrane, and thereby throw off the superjacent membrane. This can be done to advantage only where there is a natural tendency to it, that is, where there are a great many muciparous follicles under a cylindrical or fimbriated epithelium. This is the condition on part of the pharynx, but not on the tonsils; in a small portion of the larynx, in the trachea and bronchi, not on the vocal cords. Wherever there is pavement epithelium on the normal surface, and where the membrane is imbedded into the tissue, steam can hardly be expected to do good. In the other cases it will. Thus the locality of the diphtheric process determines to a great extent whether steam is indicated or not. If it be used, the necessity of a full supply of atmospheric air must not be disregarded. Steam, with an overheated room and without pure air, is liable to be as injurious as steam in pure air is beneficial in a number of cases." I may say in most cases; for though the number of muciparous glands may be small in some places, the macerating effect of vapor is always observed to a certain extent.

I may be also permitted here to refer, in regard to the inhalations of turpentine, to what I published on page 186 of the work alluded to.

"For years I was in the habit of using turpentine, either the oil or the rectified spirits, as an inhalation in bad cases of pneumonia, where hepatization was very extensive, and expectoration and resolution did not commence, with very good results in children and adults. The vapors of turpentine are so volatile and penetrating (and certainly the procedure of Taube so disagreeable to the patient, if it be permitted at all by children) that the usual method of inhaling from an apparatus appeared to me to be very superfluous. I allow the patient to remain in his bed, and keep water boiling *constantly* on an alcohol lamp, on the stove, or over the gas. A tablespoonful of spir. rect. or ol. terebinth., more or less, is poured on the water, care being taken that nothing is spilled in the fire. Thus the room is constantly filled with a penetrating odor of turpentine, which is not at all disagreeable, even when in great concentration. The effects are very satisfactory indeed. Where circumstances allowed or required it, I raised a tent over the bed, large enough not to give inconvenience to the patient, and to admit either the whole apparatus or the tube containing the mixed vapor of water and turpentine. This plan I followed in many cases, also in the case of laryngeal diphtheria of a girl of two years, in the children's service of the Mount Sinai Hospital. The baby was in a room of her own with a nurse. A tent was raised over the bed. Four days and nights was she exposed to the water and turpentine treatment, awake or asleep; not only she, but also the nurse, whose presence under the tent was insisted upon by the patient whenever she was awake. It ought to be stated that the case was not (or was not allowed to become?) a very serious one. It was serious enough to be diagnosticable, to produce hoarseness, aphonia, dyspnœa, and to render the perception of pulmonary murmurs impossible; but there never was cyanosis, with the exception of a slight hue on the upper lip. She got well with no other treatment but by iron and pot. chlor. solution. As a practical addition, I may say that the nurse did not suffer much more than she would have done after the same time passed in a close room, and in constant attendance upon an exacting and whimsical patient."

Now, Mr. Chairman, I take it for granted that when a number of practitioners give up part of an evening to listen to a fellow-member, they expect that he will not tell them what he copied from text-books for his benefit. I therefore abstain from enumerating the remedies in and out of the Pharmacopœia which have been recommended in the treatment of croup. With your permission I select one now for discussion, which is not new, it is true; but the historical view I deem necessary will prove that the consideration of mercury in its application to cases of pseudo-membranous croup is still advisable.

Samuel Bard administered calomel in doses of three or five grains daily. Rush also recommended calomel in his "Medical Inquiries." Bretonneau employed the same, and also inunctions of blue ointment. After their use he observed the cough get moist, the pseudo-membranes become looser, the sputa more copious and mucous. In his opinion the result of tracheotomy after mercurial treatment is rather more favorable. But Trousseau opposed it, and his authority was sufficient to suppress its use almost entirely. Autenrieth, in Germany (1807), gave from one to four grains of calomel every hour, never less than fifteen grains altogether. Joseph Frank, Stieglitz, Billard, Fahrner, Ruppius (1838), Benson, G. B. Wood (1847), in his "Treatise on the Practice of Medicine," Hein (1849), Bourgeois (1850), Brown (1850), Löwenhardt (1848), Burow (1864, *Journal f. Kinderk.*), Steppuhn (1864, *Journal f. Kinderk.*), Bartels (1867, *D. Arch. f. Klin. Med.*), are in favor of mercurial treatment. Burow used corrosive sublimate, gr. j.; white of one egg; distilled water, ℥ iv.; a teaspoonful every hour, until three or four grains were taken altogether. Eighteen undoubted cases of

croup are reported by him, eleven of which recovered; of these eleven three only were tracheotomized.

Miquel (1848) administered one-sixth of a grain of calomel, and two and one-half grains of alum, either alternatively or together. By the administration of alum he hoped to prevent salivation. His method has been examined and partially adopted by Guersant, Blache, and Trousseau, also by Millet, who had five successes in seventeen cases of croup.

Oppolzer (1868) gave calomel and iodide of potassium, gr. j. of each every hour, after an emetic had been administered before.

Bohn and Monti have opposed the use of mercury in croup. The latter, however, modifies his opposition to a great extent in his latest book. Bohn gave calomel, twenty to forty grains in twenty-four or forty-eight hours, and up to an ounce and a half of blue ointment besides. He never saw any injury done by it except once, a mild exfoliation from the upper jaw, and of twenty cases thus treated eight recovered. Though he says that but two of these were very severe, the result is so favorable that Rauchfuss is correct in asking why, after all, Bohn should object to the use of a remedy which has rendered him such good services (Gerhardt's *Handbuch*, vol. iii., 2, 1878, p. 210,).

Guersant (art. "Croup" in "Dictionnaire de Medécine," in thirty volumes, 1832–1845) expresses himself as follows: "A class of remedies which ought not to be neglected in confirmed croup, when one is called in the beginning, and the symptoms are not too pressing and the patient too feeble already, are mercurials. Certainly they fail sometimes, but a great many successes are due to them. I have seen three cases of croup getting well under this treatment, and in one of them the symptoms ceased as by magic when salivation commenced. Seven recoveries are mentioned by Bretonneau. Inunctions into the neck, the gums, the inner sides of the arm and the axillæ must be made simultaneously, together with calomel internally. The latter must be given as an alterant, and not with a purgative effect. To avoid this, it must be given in refracted doses, one-fourth or one-half grain every half hour or every hour, with gum powder, or sugar, or candy, and not swallowed. When no laxative effect at all is produced, the doses must be larger, but always given in the same manner. But we must not overlook the fact that mercurials, particularly when they produce salivation, throw the patient sometimes into such a state of debility as to prove fatal. Bretonneau quotes such instances. Thus it is prudent never to try this mode of medication on subjects with a feeble constitution, or such as are debilitated by previous sickness, and to suspend the use of mercurials where injurious effects become visible, and give tonics instead. For this reason it is best to resort to that kind of medication in the summer only, and perhaps not to employ it at all in the cold or moist seasons."

Barrier ("Traite pratique des Mal. de l'Enfance," 3 ed., tome i., p. 394, 1861): "Mercurials have enjoyed, and are still enjoying, a great reputation in the treatment of croup. The preparations most in use are calomel and the blue ointment. Small doses would not obtain an effect in due time, and in croup a rapid result must be looked after. Thus, according to the age of the child, .02 or .05 grammes of calomel (gr. $\frac{1}{3}$ to $\frac{1}{4}$) must be given every half hour, with the addition of a small dose of opium to avoid the purgative effect, and three or four times daily one or two grammes of the blue ointment (in older children to be doubled) are used on different parts of the surface in inunction. This method is praised by Guersant."

Of forty-one cases of croup, observed by Bartels, and not treated with tracheotomy, five recovered with mercurial inunctions. They were all serious cases, laryngeal stenosis and constitutional diphtheria were fully developed in all. Within three days the main symptoms improved, the croup membranes disintegrating. According to Frerichs, who advises to introduce large amounts of mercury into the system within a short time, he rubbed into the surface, in different places, 1.25 grammes (℈j.) of the blue ointment every hour. Several times he used as much as 75 grammes (℥ ijss.). Anæmia and hemorrhages were observed in two cases, but still the patients recovered. The same treatment was used by him for the fibrinous tracheo-bronchitis succeeding tracheotomy.

Dr. C. Rauchfuss, in his elaborate paper on "Fibrinous Laryngotracheitis," printed in the third volume of C. Gerhardt's *Handb. der Kinderk.*, expresses himself in the following manner: "When Burow published his remarkable cases, his accurate descriptions and his results induced me to try the croup treatment with corrosive sublimate. Its results were so satisfactory, compared with other methods of treatment, that I have remained true to it since and joined to it the inunctions with blue ointment; or, if the condition of the gastro-intestinal mucous membrane forbade the internal administration, I limited the treatment to inunctions extensively. The remarkably satisfactory results of a very energetic mercurial treatment has been appreciated as well by many colleagues, both in and out of the hospital, as by myself. When tracheotomies were performed, or autopsies made, it was almost always noticed that the pseudo-membranes were in a condition of muco-purulent disintegration at an unusually early period. Also in bad cases of catarrhal laryngitis, with considerable subchordal tumefaction and stenosis without pseudo-membranes, have I noticed that tumefaction disappeared soon and a copious muco-purulent secretion followed. Thus I look upon the diminution of the phlegmonous process in the mucous membrane and the copious secretion from the muciparous glands as the main results of the mercurial treatment. I have a large experience, but am not aware of a single case in which an energetic but brief mercurial treatment was attended with evil consequences, with one exception. This is a very intense and diffuse erythema, of the surface, resembling scarlatina, which may give rise to increased temperature. It is met with after inunctions, when the skin is perspiring. When it occurs the external treatment must be stopped, the child bathed, and the medication restricted to the use of the bichloride. Some of my mercuralized patients are at the present time ten or twelve years old, and in good health. Constitutional diphtheria, in its intense form, I do not consider a contra-indication; fibrinous tracheo-bronchitis is a direct and urgent indication. Thus the treatment is to be continued after tracheotomy has been performed. But it is self-evident that no astonishing results can be obtained in either form, and when I eulogize the mercurial treatment, if compared with other modes of treatment, I do so hoping that it may soon be replaced by a more successful one."

And in regard to inunctions in particular, he adds: "I never saw bad results of the inunctions with forty or fifty grammes (℥ jss.). Sometimes I have, not without fear, however, used seventy-five or one hundred grammes. In but one of the latter cases the medicinal results were bad; never since have I employed more than fifty grammes, but never less than forty."

My own experience in regard to mercury, up to the summer of 1880, when I finished my "Treatise on Diphtheria," is condensed on pages 188–190 in the following sentences:

"In regard to the action of mercurial remedies, I am no longer so sceptical as I was a quarter of a century ago. For a dozen years I hardly ever prescribed mercury, supposing that the harm it might do could be avoided by substituting other medicines, and that its effect, except in syphilis, could be obtained by other means. I admit that the experience of many subsequent years has changed my views to a certain extent. I know that in chronic inflammatory troubles, which I considered incurable in former times, a good many favorable results have

been due, at my hands, to the protracted influence of mercurials; thus, for instance, in chronic inflammations of the nervous centres, particularly the spinal cord. I also know that when the constitutional effect of mercury could be obtained speedily, cases of fibrinous tracheo-bronchitis got well in an unexpected manner. To accomplish that it is necessary to give small doses very frequently. Calomel, .5 to .75 (grs. viij. to xij.), divided into thirty or forty doses, of which one is taken every half-hour, is apt to yield a constitutional effect very soon. Such doses, with minute ones, a milligramme or more (gr. $\frac{1}{60}$), of tartar emetic, or ten or twenty times that amount of oxysulphuret of antimony, have served me well in fibrinous tracheo-bronchitis. But the mucous membrane of the trachea and bronchi is more apt to submit to such liquefying and macerating treatment than the vocal cords. The latter have no muciparous glands like the former, in which they are very copious. And while the tracheal membrane is apt to be thrown out of a tracheal incision at once, though of more recent date, the pseudo-membrane of the vocal cords, if not interfered with, takes from six days to sixteen or more for complete removal. Still, a certain effect may even here be accomplished, for maceration does not depend only on the normal mucus of the muciparous glands, but on the total secretion of the surface, which will be in constant contact with the whole respiratory tract. Thus, either on theoretical principles, or on the ground of actual experience, men of learning and judgment have used mercury in such cases as I detailed above, with a certain confidence. The actual benefit derived therefrom cannot have been great, for the mortality from croup has nowhere been encouraging. Nor is it an enjoyable proof of its efficacy that Bartels is known to have lost confidence in it in his ripest old age, either for its general unsatisfactoriness, or for the reason that the general character of all the cases in the epidemics of his later years changed the nature of his cases from the inflammatory to the septic type.

"If ever mercury is expected to do any good in these cases of suffocation by membrane, it must be made to act promptly. That is what the blue ointment does not. In its place I recommend the oleate, of which ten or twelve minims may be rubbed into the skin, along the inside of the forearms or thighs (or anywhere, when their surface becomes irritated), every hour or two hours. Or refracted doses will be useful, such as given above; or hypodermic injections of corrosive bichloride in one-half (or one) per cent. solution in distilled water, four or five drops from four to six times a day, or more, either by itself or in combination with the extensive use of the oleate, or calomel internally. The hypodermic injections act very promptly and favorably, as I repeatedly convinced myself; for instance, in those cases of hereditary syphilis, which, from the presence of volar or palmar pemphigus and general cutaneous eruptions at birth, yield, as a rule, an almost fatal prognosis under ordinary circumstances, and with the ordinary treatment."

Henoch (*Vorles. üb. Kinderk.*, 1881, page 306) is opposed to mercurial treatment: "It cannot be denied that the vigorous antiphlogistic treatment employed against this dangerous malady, particularly formerly (such as leeches, frequent emetics, and mercurials), together with the lack of appetite and repugnance to food, produced debility and anæmia." And (page 642), "A few times I believe to have seen a favorable effect of blue ointment applied every two hours in doses of 1 gramme each; and thus felt induced to try it in a large number of cases. These trials, however, terminated so unfortunately as to make me despair of a favorable result. A boy, aged eighteen months, was undergoing inunctions for syphilis when he was taken with pharyngeal diphtheria. Of one hundred cases treated in this manner but one terminated favorably; of the rest thirty-three died without an operation, and sixty-six were tracheotomized."

E. Charon ("Contrib. á la Pathologie de l'Enfance," 1881, 2 ed., page 49) takes the same stand: "Is there a medicinal treatment of croup? None in my opinion which is deserving of any confidence. The best proof is the long list of methods of treatment recommended in all of the books in different periods. As soon as a valuable remedy will be discovered able to remove the pseudo-membrane or prevent it from descending into the respiratory organs, we shall all know it. Until then it is better to abstain from all sorts of medication, and more than any other, from emetics and local cauterizations."

On the other hand, H. C. Wood, in his "Treatise on Therapeutics," 1876, 2d ed., page 369, expresses himself as follows: "Calomel is useful in severe laryngitis, and especially in the pseudo-membranous variety where the type is sthenic; and no time should be lost in bringing the system under its influence."

In Reynolds' "System of Medicine," vol. i., however, mercurials are hardly mentioned amongst the remedies to be employed, and J. Lewis Smith is of the opinion that mercurial treatment in croup "has been properly discarded."

Bartholow ("A Practical Treatise on Materia Medica and Therapeutics," 1882, 4th ed., page 235): "Large doses of calomel—five grains every four hours—are said to be very efficacious in *true* croup or membranous laryngitis. It is claimed that it allays spasm and checks the formation of the false membrane. The author is sceptical in regard to the utility of calomel in this affection. There is, however, no doubt as to the value of the subsulphate as an emetic in this disease. If given early, so high an authority as Dr. Fordyce Barker, of New York, claims that a fatal result will most certainly be averted."

The first to recommend cyanide of mercury in diphtheria was A. Erichsen (*St. Petersburg Woch.*, 1877, vol. ii., p. 14). He objects to the employment of the blue ointment, because of the uncertainty of the dose absorbed, and of other preparations, because of their actual or alleged disturbance of the digestion. His diphtheritic patients were from seven months to thirty years of age. The pseudo-membranes became thinner and loosened within a short time, not only in pharyngeal, but also in laryngeal affections. Three cases, seven months, two and a half, and three years of age, were treated exclusively with the drug, and a hot sponge externally. No lotions or gargles were used, only two daily applications of tincture of iodine were made for the purpose of circumscribing the morbid process. The dose was .0006 gramme up to the age of three years ($\frac{1}{100}$ gr.) every hour, and twice that amount for older children. Of twenty-five patients Erichsen lost one of cardiac paralysis, another of suppurative parotitis, and a third one of a complication with meningitis; in all, however, even in those last mentioned, the diphtheritic process became extinct.

Annusschat also recommends (*Berliner Klin. Woch.*, 1880, No. 43) the cyanide of mercury in diphtheria. Of one hundred and twenty patients fourteen died. They were from one to fifteen years of age. The dose was a teaspoonful of a mixture of cyanide of mercury 0.1 to 0.2 in 100 water every hour. Benzoate of sodium was blown into nose and pharynx. Stimulants were given besides. Some cases recovered after three or four days, some after six or eight. The more unfavorable or septic the cases, or the more the larynx was affected, the less favorable was the result of the medication.

H. Schulz (*Centr. f. Klin. Med.*) recommends the subcutaneous administration of mercury, mainly the cyanide, as recommended by C. G. Rothe. The latter ("Die Diphtherie," etc., Leipzic, 1884) reports the following: "A girl of three years, whose brother, four years old, had just died of diphtheria, appeared nearly moribund after an illness of a fortnight. Complete aphonia, stenotic respiration, and a high temperature rendered the prognosis very bad indeed. I then gave every hour a drachm of the following mixture: Hydrarg. bicyan., 0.01; aq. dest., 60; tr. aconiti, 1. When five or six doses had been taken respiration became moister, the cough looser, viscid mucus

was expelled, and the night was less restless. The child finally recovered with several perforations of the soft palate, otitis media, and perforation of the drum membrane.

"Since that time (September, 1880), I have employed the same drug in ninety-eight cases, six of which were complicated with scarlatina, and the result was favorable, inasmuch as the duration of the cases appeared to be shorter, and the local process exhibited unmistakable modifications (*Allg. Central.*, 1880, No. 89; *Deutsche Med. Woch.*, 1881, No. 34). Of these ninety-eight cases, the first seventy-one terminated in recovery. In the seventy-second, a girl, three years old, the pharynx being nearly clear of membranes, the larynx was suddenly affected after an inhalation of lime-water, and the patient died within a short time, even before the completion of laryngeal stenosis. This was the first case in which the larynx became affected during the treatment. Two more cases in children of from two to three years terminated fatally. The treatment was not commenced before the fourth day; at that time croup had already commenced. These three cases, as also that of a boy of five years with 'genuine croup,' whom I was called to see a few hours before his death for the purpose of performing tracheotomy, have convinced me that no effect must be expected from the remedy when the larynx is already affected; that, however, when it is employed in time, it will obviate the affection of the larynx and the fatal termination. By an affection of the larynx, however, I do not mean mere hoarseness and barking cough, or aphonia, all of which may last for days and still terminate favorably, but real stenosis.

"In place of the cyanide I sometimes give the bichloride: hydrarg. chlor. corros., 0.01–0.015; sodii chloridi, pepsin, āā 0.5; aq. destill. 60; tr. acon., 1–2—a drachm every hour, with the same result. The tincture of aconite was added for its effect on the temperature, the pulse, and the pharyngeal irritation."

With these quotations and reports the historical review of our subject is almost exhausted, if I mean to confine myself to the most important literary productions only. Still, a very few must still find places to prove the discrepancy of opinions. I copy the following from J. Forsyth Meigs and William Pepper ("A Practical Treatise on the Diseases of Children," 7th ed., 1882, p. 906):

"Recently Dr. G. A. Lynn ('Trans. Pennsylvania State Medical Society, p. 886, 1879) reported remarkable results from the use of large doses of bichloride of mercury in grave cases of diphtheria. He found that even so large a dose as gr. $\frac{1}{10}$ every three hours was well borne by children one year old, and asserts that from his experience it prevents the spread of the membrane or the development of blood-poisoning, and acts as much as a specific in diphtheria as quinia does in intermittent fever. These bold assertions have been corroborated by several good observers. We have not used this remedy sufficiently to authorize an expression of opinion, but a truly remarkable case, occurring in the practice of Dr. T. I. Yarrow, in Philadelphia, and seen by us in consultation ('Address on Medicine,' by William Pepper, M.D. 'Trans. Am. Med. Assoc.,' 1881), where this remedy was used in the above manner with excellent results, convinces us that further cautious trials should be made in this direction. The same may be said for the treatment by enormous doses of calomel, which has been advocated by some good observers as producing specific curative effects. It is difficult to define the cases in which it might be justifiable to try either of these modes of treatment, but it seems to us that it would chiefly be in cases where a continued tendency to pseudo-membrane showed itself, while as yet no extreme degree of blood-poisoning had occurred."

In the latest French text-book, however (A. Descroizilles, "Manuel de Path. et de Clinique Infantiles," 1884, p. 326) the following sentences are found:

"Mercurials have been eulogized in America, and are still fashionable in England. In France they are not believed in at all. Mercury has been used in the form of calomel in repeated doses, or the blue ointment has been employed round the neck. In spite of what has been said in England to the contrary, they debilitate, purge, and salivate, impoverish the blood, and facilitate hemorrhages. Therefore they have been almost given up."

Finally, in E. Bouchut's "Clinique de l'Hôpital des Enfants Malades" (1884) mercury is not mentioned at all amongst the remedies employed in Europe. Thus it is evident that the difference of opinions in regard to the availability of mercury, in croup, is very great indeed. But, there is a peculiar feature in the controversy which cannot escape your attention. It is this, that those who speak of the subject in a text-book, and in brief text-book fashion, are apt to trifle with it because of their tendency to teach accepted facts only, while some of those who have personal observations to relate in full, appear as the friends of the mercurial treatment.

My own experience is not a very extensive one, but by what I have since seen my opinions of 1880 are somewhat modified in favor of accepting the beneficial results of mercury in croup. Particularly was I struck with, and encouraged by, the force of the statements made by Pepper, cautious though they were, before the American Medical Association at Richmond, in 1881, and alluded to before. Since that time I have employed, or recommended, mercury in many cases, and I believe with fair result. I am not, however, of those who never lose a case. But what I have seen is at your service. Allow me, therefore, to detail a few cases as instances only, and finally to draw some conclusions.

Case of Dr. G. Mourraille.—F. M——, female, aged three years and eight months. The doctor was called March 28th, 4 P.M. The little girl had slept well the previous night and took her breakfast as usual; complained of headache and refused to go out at 2 P.M. Took tinct. ferr. mur., gtt. iij. every hour, and was ordered for the evening a dose of pulv. dover. and hydrarg. c. cret., āā gr. j. At that time, temperature 101½°, gray extensive, but thin deposits on tonsils; no cough. Was called again at 8 P.M. Powder had been taken. Cough frequent and croupy, voice hoarse, great dyspnœa, face congested, but not cyanotic. 11 P.M.: Same condition, child has not slept. Another dose of pulv. dover. and hyd. c. cret., āā gr. j. Child falls asleep about midnight. Respiration less disturbed, cough less frequent, but of the same character; sleep restless. Consultation on the 29th, 9 A.M.: Temperature, 101°; voice feeble and hoarse; cough hoarse; pharyngeal membranes less extensive; respiration croupy; moderate præcordial and supraclavicular recession. Bichloride of mercury, gr. $\frac{1}{12}$ every hour in water. Night restless; voice and cough not changed, but respiration rather easier.

March 30th.—No change in the general symptoms, but more diphtheritic deposits in the throat. Twenty-four doses of the bichloride of mercury had been taken by 3 P.M. It was ordered to be renewed. About 8 P.M. several loose passages, with griping pain. The remedy was discontinued and pulv. dov. and hyd. c. cret., āā gr. j., given instead. Night fair; voice hoarse; cough rather looser; respiration rather easier.

March 31st.—The bichloride resumed in the morning, followed by loose passages. About noon one drop of the wine of opium was ordered with each hourly dose. In this way the remedy was well tolerated. The night was rather satisfactory; three doses only of the medicine were given.

April 1st.—Cough, loose; respiration, pretty easy; no membranes in the pharynx; the medicine is continued until 2 P.M. In the evening pulv. dov. and hyd. c. cret.

April 2d.—Voice hoarse, but cough more catarrhal. Treatment discontinued. Child very nervous. Pulse in-

termittent. Doses of bromide potass., gr. vj., in the evening. Night good. Temperature from March 28th to April 6th, 99° to 101° (rectum), the latter in the afternoon's mostly. Cough lasted until April 12th, hoarseness to April 16th. The total amount of bichlor. hydrarg. was grs. ij.

CASE OF DR. T. N. BURCHARD.[1]—*Fibrinous bronchitis in a child five months old, treated with corrosive sublimate; recovery.*—Called March 30th, 6 A.M., to see Leila H——, aged five months. Found her suffering with dyspnœa, croupy respiration, and painful cough. The child had been perfectly well the day previous, and had been out for a ride. Two months before had had a severe capillary bronchitis which lasted eight days. Examination revealed hyperæmia of fauces, no swelling or membrane visible. Physical examination of lungs negative. Ordered mustard cloth to throat, to be followed with hot fomentations, two grains of quinine and a diaphoretic mixture of ipecac, nitre, and spirits of mindererus. The room to be kept filled with steam. 9 P.M.: Had passed a comfortable day, and vomited considerable phlegm at 7 P.M. Pulse, 120; temperature, 99⅘°; respiration, 38. Fauces red, no membrane; physical examination of lungs negative; respiration croupy; cough painful; voice absent. Ordered whiskey, gtt. viij. q. 2 h.; paregoric, gtt. iij. q. 2 h.; diaphoretic mixture to be continued. 12 P.M.: Child very weak. Pulse, 152; respiration, 34. Ordered carb. ammon., gr. ij., and tinct. digital., gtt. ij. Whiskey, gtt. xv., to be repeated at end of half an hour.

March 31st.—3 A.M.: Child sleeping, breathing more easily. Pulse, 148; temperature, 103¼°; respiration, 32. 11 A.M.: Pulse, 132; temperature, 103°; respiration, 35. Respirations easier; cough not so painful; voice still absent. Diaphoretic mixture discontinued. Whiskey, gtt. x. q. 3 h.; quinine, gr. ij. 1 P.M.: Seen by Dr. Jacobi in consultation. Pulse, 132; temperature, 101⅘°; respiration, 68. Physical examination of throat and lungs negative. Percussion over lungs posteriorly and apices anteriorly, extra-sonorous; a few faint sonorous râles heard posteriorly. Diagnosis of acute laryngitis confirmed. Since last visit, however, respirations have doubled in frequency, with falling temperature. Dr. Jacobi suspects the exudative process is invading the bronchi. Pneumonia, pleurisy, and capillary bronchitis can be positively excluded. Ordered hydrarg. bichloridi, gr. $\frac{1}{60}$ q. 1 h.; stimulants, poultices, and steam to be continued as before. 6 P.M.: Pulse, 132; temperature, 101⅘°; respiration, 70. Condition about the same; voice absent. 7.50 P.M.: Vomited after taking corrosive sublimate. 12 P.M.: Again seen by Dr. Jacobi. Pulse, 132; temperature, 101⅘°; respiration, 62. Has taken $\frac{1}{60}$ gr. bichloride of mercury each hour since 2 P.M.

April 1st.—8 A.M.: Passed comfortable night; vomited corrosive sublimate at 4.45 A.M. Pulse, 128; temperature, 102°; respiration, 64. Ordered whiskey, gtt. xv. q. 2 h.; bichloride to be continued. 1 P.M.: Seen by Dr. Jacobi. Pulse, 132; temperature, 101⅘°; respiration, 66. Fauces slightly red; no swelling or membrane; examination of lungs negative, save few sonorous râles heard posteriorly. Has taken and retained twenty-two $\frac{1}{60}$ gr. doses of corrosive sublimate. Ordered treatment continued. 6 P.M.: Pulse, 132; temperature, 101⅕°; respiration, 64. Noticed slight puffiness on left side of neck; lymphatic glands not enlarged; no swelling of tonsils. 10 P.M.: Pulse, 120; temperature, 100⅘°; respiration, 48. Had natural movement at 8 o'clock, followed by a loose one at 8.45. Ordered paregoric, gtt. iij. and to omit one dose hydrarg. bichloridi. 11.30 P.M.: Seen by Dr. Jacobi. Pulse, 132; temperature, 100½°; respiration, 53. Mother's milk having failed, ordered barley-water and milk. Whiskey, gtt. xv. q. 2 h. The hydrarg. bichloride to be continued, unless diarrhœa or vomiting should supervene. Physical examination of throat and lungs as before.

April 2d.—2.45 A.M.: Vomited considerable phlegm; swallows with difficulty; child's appearance worse. Ordered brandy to be substituted for whiskey, gtt. xv. q. 2 h.; tinct. digital., gtt. ij. q. 2 h. Poultices and steam to be kept up. 9 A.M.: Child supposed to be dying; marked dyspnœa with cyanosis. Pulse indistinguishable; respiration, 72. Found above conditions to be dependent upon accumulation of mucus in the throat. Inverted the child, wiped out mucus from throat with finger; stimulated the child with friction, brandy, carb. ammon. and tinct. digital. 9.30 A.M.: Color and breathing greatly improved; considerable mucus in bronchi; caused vomiting by finger in throat. After vomiting, pulse about 160; respiration, 48; temperature, 101.° Neck more swollen; hyperæmia of throat increased. 1 P.M.: Dr. Jacobi in consultation. Child has taken twenty-two doses of hydrarg. bichloride during past twenty-four hours, all except one dose having been retained. Dr. Jacobi detected a swelling on left side pharyngeal wall, low down, of phlegmonous character. Child's general appearance improved. Ordered brandy, gtt. xij. q. 2 h.; milk and barley-water to be continued; other treatment as before. 11 P.M.: Seen by Dr. Jacobi in consultation. Pulse, 144; temperature, 100⅕°; respiration, 60. Treatment continued.

April 3d.—9 A.M.: Child passed comfortable night, coughing less, and sleeping more. Two small, green movements during the night. Pulse, 140; temperature, 101⅘°; respiration, 66. Swallows better; cough less painful; hyperæmia of throat less; swelling about the same. Examination of the lungs gave numerous moist râles over both lungs, posteriorly. Percussion extra-resonant. Treatment continued. 1 P.M.: Seen by Dr. Jacobi in consultation. Has taken and retained twenty-one doses hydrarg. bichloride. Pulse, 150; temperature, 100⅘°; respiration, 60. Ordered brandy, gtt. xv. q. 2 h.; tinct. digital., gtt. ij. q. 4 h.; hydrarg. bichloridi, gr. $\frac{1}{60}$ q. 1 h. 3.35 P.M.: Had large *constipated* movement. 4.35 P.M.: Vomited considerable phlegm. Pulse, 150; temperature, 101⅕°; respiration, 68. 11 P.M.: Breathing much better. Takes and retains nourishment and medicine. Nostrils considerably occluded with mucus. Pulse, 144; temperature, 100⅕°; respiration, 52. Has vomited some curdled milk during the evening. Swelling in throat about the same. Condition of lungs unchanged.

April 4th.—4 A.M.: Sleeping quietly. Respiration, 38; pulse, 132. Feet and legs very cold; hot-water bag applied to them. Brandy and carb. ammon. given freely. 5.30 A.M.: Small constipated movement followed by loose movement at seven o'clock. Vomited sour milk several times during the night. Child very restless, but general condition improved. 1 P.M.: Seen by Dr. Jacobi. Pulse, 160; temperature, 101⅕°; respiration, 54. Has taken nineteen $\frac{1}{60}$ gr. doses of bichloride since yesterday. 6 P.M.: Nursed ten minutes freely this afternoon. Treatment continued.

April 5th.—9 A.M.: Has passed a comfortable night. Has vomited phlegm a number of times. Stomach quite irritable; substituted inunctions of the oleate of mercury in place of the bichlorides. 1 P.M.: Seen by Dr. Jacobi in consultation. Pulse, 132; temperature, 100°; respiration, 28. Asleep. Has nursed twice during the morning; swelling in throat less; poultice discontinued. Ordered brandy, gtt. xv. q. 3 h.; tinct. digital, gtt. ij. q. 4 h.; hydrarg. bichloridi, gr. $\frac{1}{60}$ q. 8 h. Steam to be continued as before.

April 6th.—9 A.M.: Passed comfortable night. Vomited phlegm twice or three times during night. Pulse, 128; temperature, 100°; respiration, 32. Voice returning; cough stronger and less frequent. Ordered whiskey, gtt. x. q. 4 h.; tr. digitalis, gtt. ij. q. 8 h. Child nursing.

April 10th.—Steam discontinued. Thoroughly convalescent.

April 15th.—Child taken to Lakewood, N. J., to-day.

[1] Reported by Dr. Burchard.

CASE OF DR. E. J. HOGAN.[1]—*Croup; tracheotomy; bronchial croup; recovery.*—I was called to see Milton R——, aged two years, on March 9th. Two persons living in the house had suffered from pharyngeal diphtheria about a month previously. The child seemed to have a mild laryngeal catarrh with moderate dyspnœa. A careful examination failed to reveal more than congestion of the pharyngeal and tonsillar mucous membrane. His temperature was *normal.* General condition excellent.

On the evening of March 10th he was breathing easily, pulse good, temperature normal; so much better, indeed, that I did not think it would be necessary for me to call again.

An alarming dyspnœa developed at about 3 A.M., March 11th. A physician, called in the emergency, administered turpeth mineral, which was followed by emesis and partial relief of the dyspnœa. A profuse diarrhœa, lasting over twenty-four hours, also resulted from it.

During the morning of the 11th, the symptoms became steadily more threatening. (There were occasional remissions of short duration.) Pulse, 140 to 150; respiration, 50 to 60; cyanosis, at times very marked; semicoma; considerable epigastric and suprasternal recession. On percussion, pulmonary resonance good. Auscultatory signs masked by the noisy laryngeal breathing. Neither Dr. McMahon (who had been called to see the case) nor myself could detect any membrane in the throat or nose. We both agreed as to the necessity of an early tracheotomy. Meanwhile the child was taking carbonate of ammonia internally and lime vapor inhalations.

Laryngo-tracheotomy was done by Dr. F. Lange, at 2.30 P.M. No anæsthetic used, patient being insensible. Two bleeding veins were ligated. A portion of the first tracheal ring was removed after the windpipe had been opened. A thin, soft, easily detached membrane was removed from the trachea. A tube was inserted, covered with a sponge wrung out of hot water. The wound was treated with corrosive sublimate solution ($\frac{1}{2000}$) and iodoform; no spray used; no internal treatment except small doses of Dover's powder (p. r. n.) for cough.

On the evening after the operation the child was breathing easily through the tube and took nourishment (milk) freely. The pulse had fallen to 120. Temperature (rectal), 102.2°.

March 12th.—In the afternoon the patient began to suffer from increasing obstruction below the tracheal wound. Loud tracheal râles. Respirations very rapid. Both tubes removed in the evening by Dr. Lange, who, by the aid of a catheter and aspiration, freed some pieces of thick, very dense, adherent membrane. Later seen also by Dr. Jacobi (10 P.M.). Breathing still much obstructed. Examination of chest negative. On the suggestion of Dr. Jacobi the bichloride of mercury was administered in doses of $\frac{1}{12}$ of a grain hourly, with the expectation of its favoring the disintegration and separation of the membranes.

From this time on it never became necessary to remove the outer tube for the sake of cleaning the trachea. The use of the feather with occasional instillations of a solution of common salt sufficed to remove any material causing obstruction. The bichloride was suspended on the third day, on account of intestinal irritation. The gums were not affected. On March 14th, the temperature reached 102.2°; on March 21st, 104.8°. On these two occasions, quinine was given, eight grains morning and evening in divided doses. On about the ninth day the patient was put on the elixir of gentian and iron (Wyeth's). The tube was removed on March 22d; after its removal the wound did nicely. During the course of the disease albumen in small amounts and some hyaline casts were found in the urine.

In connection with the report of his case, Dr. Hogan says: "My experience with the bichloride in this case, it is fair to state, has been such that I would feel it an injustice to withold it from a patient in the future, under similar circumstances. Previous to its administration, as the history shows, there was a rapid formation of very dense, thick membrane, with every prospect of death from tracheal occlusion. Afterward, the case went on *steadily* to a favorable termination. Even granting the possibility of a coincidence, it would seem that a resort to this means is both rational and expedient."

These three cases are but specimens of what I have frequently seen in my own practice, and in that of colleagues, some of whom may be present. Not only have I seen a certain number of cases of pseudo-membranous croup, mostly complicated with pharyngeal diphtheria, getting well without tracheotomy with mercurial treatment, but the percentage of recoveries after tracheotomy in the last three years, in my experience, has been greater than through ten years previously when no mercury was employed.

Now, I am not so enthusiastic as to generalize on the strength of my cases—even dozens of cases count but little when we recall the fact that statistics without great numbers are deceptive—but I know that for years past, with mercurial treatment, my established axiom, that in authenticated cases of membranous croup, not tracheotomized, the mortality amounted to ninety or ninety-five per cent., has been happily shaken in its foundations.

In regard to the preparations of mercury to be used I agree with Voit and Hartnack in this, that it is best to agree upon a very few of the preparations of mercury in medical practice. The bichloride may be given in a dilution of more or less than 1 to 15,000, that is, a grain in a quart, or Baerensprung's albuminate, or Bamberger's peptonate may be employed. The latter's patients who used either, subcutaneously, were not salivated, though nothing was done to prevent salivation, and increased in weight during the treatment. Albuminate taken internally disturbed the stomach in no way; its favorable effect on the appetite has been observed occasionally. Soluble preparations in large dilutions are easily absorbed by the mucous membranes (or by ulcerated surfaces), thus they act in baths. In somewhat concentrated form it may give rise to inflammation, in stronger concentration to cauterization; gastric and intestinal disturbances may reach the degree obtained by arsenic or cholera, and prove fatal. Pills with larger doses of mercury lose their dangerousness by meeting with plenty of albumen to form albuminates, particularly when given after meals.

The corrosive sublimate is a strong antifermentative. Bacteria are killed by it in dilutions of one to twenty thousand (Buchholtz), or according to others, one to three hundred thousand. At all events it is ten times as powerful as thymol and benzoate of sodium; twenty times more than cresot or benzoic acid, or oil of thyme; thirty times than salicylic acid, or eucalyptol; one hundred times than carbolic acid or quinia.[1] The deductions of Dr. Wm. H. Thallon, of Brooklyn, as published in the *New York Medical Journal* of April 12th and 19th, prove not only that the bichloride of mercury is a proper antifermentative to be given, but also that the doses must be large when compared with those prescribed or permitted by the books.

Hydrargyrum bichloride combines in the stomach with chloride of sodium, is absorbed as such, and changes into an albuminate with the albumen of the blood. Dissolved albumen, it is true, is coagulated by hydrargyrum bichloride, and antagonized and rendered not absorbable; but both a surplus of albumen and the addition of chloride of sodium restore its solubility. These conditions are mostly found in the stomach, and always in the blood. In an alkaline solution of albumen, hydrargyrum bichloride produces no coagulation

[1] Reported by Dr. Hogan.

[1] Nothnagel: Handb. d. Arzneimittellehre, III, Aufl., p. 178.

when sodium chloride was added. Thus, subcutaneous injections meeting with the alkaline tissue fluid are best tolerated when sodium chloride is added to the mercurial solution. The contents of the stomach and its fluids are mostly acid, however. Marle found that acid solutions of albumen are not coagulated at all by hydrargyrum bichloride, a slight obscurity of the solution is produced, however, by the addition of sodium chloride, so that the latter may better be dispensed with in internal medication, unless the dose of the hydrargyrum chloride be large. Marle expresses even the opinion that large quantities of the sodium chloride may disturb digestion by its shrinking influence upon the hydrargyrum albuminate. He found that in artificial digestive fluid hydrargyrum chloride does not coagulate peptone in a solution of one to three thousand, nor does it throw out the pepsine in a solution of one to one hundred, or less (*Arch. f. Exper. Pathol. u. Pharm.*, vol. iii.).

In regard to the treatment of croup after the performance of tracheotomy, I finally make the following fragmentary suggestions:

The temperature of the room must not be too high, not much over 70° F. The air must be kept moist. A kettle with boiling water on an open fireplace, works quite well, provided the steam enters the room, and not the chimney. To obviate the latter, a tin cylinder, of the shape of a fish-horn, may be thrown over the spout of the kettle, which is generally too short. The old-fashioned cooking-oven in the room, or a stove of former patterns will do as well. The self-acting stoves are bad, they give out a great deal of coal-gas, and have no place where to put a kettle. Gas-stoves of any shape or pattern are injurious, gas consumes so much more oxygen than alcohol that a large alcohol lamp, to boil water on constantly, serves the purpose better. When the room is large, or cold, part of it may be easily changed into a closet by means of a few nails driven into opposite walls near the ceiling, ropes, and bed-sheets. Into such a closet, or tent, the steam may be introduced by a tin tube, the alcohol lamp remaining outside the sheets. A tablespoonful of spirits of turpentine may be poured on the boiling water every half hour, or hour. The steam or vapor, however, must not be too thick. Oxygen must not be excluded. Many years ago I demonstrated the necessity of allowing a full supply of oxygen by the case of a baby who suffered from descending croup, after tracheotomy was performed. He was in convulsions from carbolic acid gas poisoning. Whenever I introduced oxygen from a bystanding cylinder into the tube, the convulsions would cease, and the cyanosis decrease; when I stopped the supply, cyanosis and convulsions would return. Thus it may frequently be necessary to open a window, more or less. Here, as in everything else, the judgment of the physician will decide upon the indications of the individual case.

The nutrition of the patient has generally suffered much. Before the operation but little food was taken, still less was digested, and the operation itself and the anæsthetic have added to the previous weakness or exhaustion. Moderate feeding and stimulation are therefore to be commenced soon. Vomiting after chloroform I have seldom seen to last long or to be embarrassing under these circumstances. Feeding and stimulation is the more necessary the more the hungry lymph-vessels are liable to absorb injurious material when not supplied with healthy food.

Is internal treatment required? The general treatment must be continued. If it consisted in the administration of hydrargyrum, either internally or externally, it must be continued. If its effect was not sufficient to clear the larynx and to render the operation unnecessary, it will or may be sufficient to complete its effect in the next day or two, to prevent the process from descending or the membranes becoming too many or too thick. No changes ought to be made in the treatment unless there be changes in the symptoms. Not infrequently the first symptoms of broncho-pneumonia come on within a few hours after the operation, recognizable by frequent pulse, respiration frequent beyond proportion, and physical symptoms. The stomach is not very reliable. Quinine answers best hypodermically. From six to ten grains may be injected at once. The preparation which has served me best in the last few years is a solution of the carbamid in five parts of water. If an additional remedy is required, from twenty to thirty grains of sodium salicylate may be given in the course of three or four hours, in hourly doses, to reduce the temperature. Tincture of digitalis will prove advisable at the same time when the heart appears to require it. Strychniæ sulphas will act as a powerful nervine; a twenty-fifth of a grain may be given to a child, two years of age, every two hours, until four doses, or five, will have been taken. The rest of the treatment of the complications depends on their nature and character. It is not the name of the disease which has to be treated, here as in every case, but the individual patient

In regard to stimulants I have but little to say. I use alcohol in the most pleasant shape, preferring brandy or whiskey. I use a great deal of camphor, ten to forty grains daily, or in cases of urgency, Siberian musk, from two to five grains, every half hour or hour, until from fifteen to twenty grains have been taken, in cases of collapse or great prostration.

In this connection I have nothing to say about local applications to the trachea, or the handling or removal of the tube. My subject was a limited one. Besides, I meant to suggest rather than to teach. My object was to impress upon the minds of my colleagues, and particularly those younger than myself, the necessity of not despairing, even before one of the most serious problems of medical practice. This one fact I will urge upon you, trite though it may be, and ridiculous though its expression may appear, viz.: that the name of a disease is not the object of treatment, that the name of a drug is not the requirement in a morbid process, but its intelligent and appropriate use. Scores of times have I been told, for instance, that my method of treating diphtheria with tincture of iron was carried out in an individual case, when I found that three or four drops of tinct. ferr. mur. had been administered three or four times a day. This may serve as an instance, but also as a warning. It is not enough to administer hydrargyrum bichloride; to be effective, enough must be given, and quickly enough. The doses must be large, and largely diluted. Both local and constitutional effects must not be feared. They will seldom be met with. If they are they amount to little in comparison with the mortal enemy you are going to fight. Mercurial stomatitis in infants is very rare indeed, and will readily heal. In larger children, of from two to five years, it appears but late, if at all; as a rule, the administration of mercury is the less objectionable the younger the patient. My doses have varied from $\frac{1}{60}$ to $\frac{1}{24}$ of a grain (1 to $2\frac{1}{2}$ milligrammes) every hour, and the treatment has been continued from one to six days.

To conclude, however, I shall here suggest again, what has been the gist of the remarks of the evening, in brief words:

First.—The mercurial treatment of pseudo-membranous affections of the respiratory organs is promising of great results.

Second.—The corrosive sublimate is the preparation best adapted for internal medication.

Third.—The system must be brought under its influence speedily, by frequent doses.

Fourth.—It must be given in dilutions of 1 to at least 3,000 to 5,000.

Fifth.—Babies of tender age bear one-half grain and more a day, and many days in succession.

Sixth.—Salivation and stomatitis are rarely observed, and appear to heal kindly. Gastro-intestinal disturbances are not frequent; they are moderate, can be avoided by

the administration of mucilaginous and farinaceous food, or of mild doses of opium.

Seventh.—If not well tolerated, the inunction of sufficient and frequent doses of hydrargyrum oleate takes the place of the corrosive chloride, either together, or alternately with the internal administration.

Eighth.—The treatment of croup may be preventive to a great extent. Most of the cases are complicated with, or descend from, diphtheria of the fauces. Here the preventive treatment of croup must begin. Without desiring to encourage mere local treatment, which in unwilling patients has to resort to force or violence, and thereby does great harm, I point to the peculiar local effect of mercury on the pharynx, both in the healthy and sick, as a means to influence the threatened invasion of the larynx.

THE SUBCUTANEOUS INJECTION OF HUMAN SCARLATINAL BLOOD.

By J. W. STICKLER, M.S., M.D.,

ORANGE, N. J.

My own experience in the subcutaneous use of human scarlatinal blood does not fully confirm the results given by Coze, Feltz, and Reiss. In my first article (Medical Record, March 24, 1883) I quoted the results they obtained by injecting under the skin of sixty-six rabbits blood taken from a patient sick with scarlet fever. Of this number sixty-two died, and the remaining four had an intense fever which nearly destroyed them. I have taken blood from patients who had *well-marked* scarlatina, and have introduced it under the skin of rabbits and dogs without destroying life, or producing such symptoms as would justify the belief that the animals experimented upon had scarlet fever. It is true that a slight constitutional disturbance resulted, but nothing characteristic. As is well known, white rabbits are very susceptible to the action of almost any morbid product introduced into their bodies. The inference, then, would be natural, that if a specimen of scarlatinal blood were introduced into the system of several small animals, such as rabbits and dogs, without reproducing the disease, the same result would follow the introduction of blood from the same source into the human system. Of course, some allowance must be made for the difference of susceptibility of the lower animals and man. I therefore think that the virulence of any given specimen of scarlatinal blood should be tested before injecting it under the skin of a person who is supposed to have been protected against the disease, otherwise it cannot be relied upon as a test.

I draw attention to this point because, in my first series of experiments in the use of equine scarlatinal virus, I endeavored to ascertain whether the inoculated patients had secured immunity from the natural variety of scarlatina, by injecting subcutaneously blood taken from well-marked cases, patients who had both angina and eruption as pronounced as they could be. If I remember correctly, some of this same blood failed to produce characteristic symptoms in rabbits. However, as I employed different specimens, and all taken from severe cases, it is possible that some of them might have produced in the lower (small) animals the symptoms spoken of by Coze, Feltz, and Reiss. At all events I feel satisfied that the introduction of human scarlatinal blood under the skin of my first twelve cases was, in the light of my own experience, an unreliable way of ascertaining whether the equine virus had secured to them safety from an attack of scarlet fever. The most satisfactory test is an exposure to the contagium as it exists in the air of the sick-room. In this way the poison is brought into contact with the mucous membrane of the eyes, nose, pharynx, larynx, and lungs, and is much more liable to be absorbed and produce a specific effect than is the blood when introduced under the skin. I make this statement in order that absolute truth may be made prominent in all the details pertaining to these investigations. Some of the children inoculated have been exposed to air which has been contaminated by scarlet fever patients who have had the disease in the locality where they live, others have been exposed directly to the poison in the sick-room, but they have, with a few exceptions, escaped without a trace of the disease. The "exceptions" were children who were inoculated several days after direct exposure, the disease developing as soon as five hours after inoculation in one case.

Progress of Medical Science.

Intermittent Paraplegia.—Dr. Shakhnovitch describes a case of this kind in a patient, aged forty-four, of a strong build, with a powerfully developed muscular system, of splendid general health, who for twenty-five years has suffered from intermittent paraplegia. The patient's father had the same curious affection, and, as the author alleges, succumbed in his fifty-fourth year exclusively from increase in the frequency of the paralytic attacks. The patient's brother is epileptic. According to the patient's assertions, the first paralytic attack appeared a few hours after exposure to cold. The attacks come in intervals varying from a few hours to two months; they commence invariably during sleep. He awakes, already struck by complete paralysis in all four extremities, consciousness being perfectly retained, and no pain or any unpleasant sensations being felt. Speech, sight, hearing, smelling, and taste; tactile, painful, and thermic sensibilities, and the bladder and rectum remain thoroughly normal. Reflexes are abolished; the muscles of the body and extremities are stiff and hard to the touch. By the end of from three to twelve hours the patient falls asleep, and on awaking feels only numbness in the extremities, which passes away in about two hours, or—when he begins to make energetic movements, or undergoes shampooing—in half an hour. The patient is intelligent and cheerful, and leads a very active life. He never suffered from malarial fever, therefore his case cannot be placed in the same category with the cases of intermittent paraplegia published by Hartwig, Macario, Romberg, and Gibney. Dr. Shakhnovitch thinks that he has discovered a new form of neurosis, which he proposes to call "paraplegia spinalis intermittens nervosa."—*London Medical Record*, March 15, 1884.

Humane Blistering.—Mr. S. Stretton, in the *British Medical Journal*, recommends the following method of blistering. The surface requiring such counter-irritation is to be well covered with annular blisters about the size of the human iris, cut from vesicating tissue with an ordinary gun-punch, the centre being extracted with a punch of small size. Once secure to the surface, and covered with cotton-wool and bandage, these blisters require no further attention. The discomfort created is so slight that there is never any resistance to their application.

Rapid Staining of Koch's Bacilli.—Dr. Law, writing in the *British Medical Journal*, recommends the following plan: A thin and even film of sputum is first dried upon the cover-glass in the usual way, and then floated upon the surface of a small quantity of the magenta and aniline solution previously filtered into a watch-glass. Gentle heat is now applied by means of a spirit-lamp, until vapor rises from the liquid. The cover-glass is now removed and carefully washed in methylated spirit, until as much as possible of the stain is dissolved out, and finally dried. A drop of Tarrant's solution, on a glass slide, forms a suitable mount for the specimen. The whole process need not last longer than five minutes; and it will be seen that the use of chrysoidine and nitric acid is entirely dispensed with, a gain that all must appreciate.

THE TREATMENT OF HYPERTROPHY OF THE NASAL MUCOUS MEMBRANE.—Dr. Morell Mackenzie, in a paper on hypertrophy of the mucous membrane of the nose (*Annales des Maladies de l'Oreille, du Larynx*, etc., vol. ix., No. 6), says that when catarrh of the nose has existed for some years, and, indeed, in scrofulous children, when it has lasted but a few months, great thickening of the mucous membrane sometimes takes place. The symptoms are the same as those of ordinary chronic catarrh, but intensified, the patient being often quite unable to blow his nose, and being obliged to breathe entirely through the mouth. The voice is persistently nasal, and the patient, if a child, always keeps the mouth open, presenting the well-known stupid appearance so often observed in cases of enlarged tonsils. It has recently been noticed by several physicians that obstruction of the nasal passages is apt to give rise to very troublesome reflex phenomena, such as asthma, cough, and even epilepsy. These phenomena, however, are not nearly so frequent in cases of simple hypertrophy as in polypus, the probable reason being, as suggested by Hack, that the morbid alteration of structure destroys the cavernous tissue, diminishes sensibility, and thereby lessens reflex excitability. The diagnosis is easy, for a careful examination with the speculum and rhinoscope will, as a rule, reveal the nature of the case. The author then points out the connection between such thickening and genuine polypus, remarking that the two conditions are frequently found associated. He regards the prognosis as favorable. With respect to treatment he says that it frequently needs to be of a vigorous character, but at an early stage the mildest measures are sometimes sufficient, the daily use of gum-elastic bougies often effecting a cure. The smallest size of instrument should, as a rule, be employed at first, and at the beginning of the treatment the bougie should be left in the nose for no longer than five minutes at a time; after a few days, however, it may remain *in situ* from ten to fifteen minutes, and at the end of a week it can be easily tolerated for half an hour. Larger bougies should afterward be employed, but force must always be carefully avoided. Mild alkaline sprays or hand-washes are often of great service if perseveringly employed. Sneezing must be checked by the inhalation of strong ammonia or acetic ether.

Should this plan not succeed more active steps must be taken; but a word of caution is perhaps necessary in connection with this point. For, though the introduction of the electric cautery and the wire écraseur permits some relaxation of the rule under which surgeons were taught "to cut through everything soft, to saw through everything hard, and to tie everything that bleeds," the spirit of this simple instruction has, he fears, in recent years, sometimes influenced the young practitioner, and the nasal passages have occasionally been "cleared" with a zeal and energy worthy of the industrious backwoodsman. In several cases that have come under his own care, in which severe measures had previously been urgently advised by others, he succeeded in effecting a cure by the simple removal of all causes of irritation and the persevering use of gentle dilatation. He would also warn some of his younger *confrères* that as the appearance of the interior of the nose varies in healthy persons just as much as its outward configuration, it is unnecessary, when no inconvenience is felt, to restore geometrical symmetry to the turbinated bodies, or to invest the lining membrane of the nose with artistic merit. But whilst deprecating unnecessary aggression in this tender region, he does not deny that there are many cases which can only be cured by active treatment.

Should the hypertrophy resist the measures already recommended, the redundant tissue must be destroyed or removed. Destruction with electric cautery will be found the most simple and efficacious method. Instead of destroying the hypertrophied tissue, however, it may be removed by a cutting operation. For this purpose either a snare or sharp forceps may be employed. When the anterior part of one of the turbinated bodies is enlarged, it should first be transfixed with a needle mounted in a light handle, the loop of the écraseur being then passed over the needle, and gradually drawn round the hypertrophied membrane. If the posterior extremity of the turbinated body be the part affected, such a bend should be given to the loop before it is pushed through the nose that it will pass over the mass in the naso-pharynx. A little manipulation will suffice to secure the growth, which, if hemorrhage is anticipated, should be cut through very slowly, the operation being interrupted every few minutes, and not completed for half an hour or even an hour. In these cases, it will be found much more easy to remove the swollen tissue with the écraseur passed through the nose than to destroy it through the naso-pharynx. Dr. Beverley Robinson has successfully removed hypertrophied tissue from the turbinated bodies by means of strongly toothed forceps, but this treatment appears to the author to be much more severe than either the electric cautery or the wire écraseur.

VANILLISM.—Dr. Laget has made an examination relative to the accidents caused by the manipulation of vanilla. In the Bordeaux warehouses the pods are unpacked, brushed, and put in boxes; in the distilleries they are cut in small pieces for the fabrication of various liqueurs. It has been found that the workmen exposed to the dust and emanations of vanilla are liable to papular eruptions on the face and arms, accompanied by much itching and swelling, and followed by desquamation. Coryza and conjunctivitis are frequent. In other cases the chief symptoms are anæmia, headache, giddiness, irritability of the bladder, nervousness, and sexual excitement.—*London Medical Record*, April 15, 1884.

ALBUMINURIA IN NERVOUSNESS.—In the recent interesting discussion on albuminuria by the Glasgow Pathological and Clinical Society (*British Medical Journal*, February 23, 1884), Dr. Granville directed attention to two not generally recognized classes or groups of cases in which albumen frequently occurred in the urine without organic disease. First, there were cases of young men in which the genito-spinal centre had been debilitated and rendered preternaturally excitable, not necessarily by sexual excess, but by the struggle to repress and restrain the passions, a mental and nerve-centre excitement which might be so wrought up as to prove as mischievous in its effects as excess or abuse. In these cases, he said, albuminuria frequently occurred, and was either overlooked or wrongly regarded as evidence of kidney disease; the latter mistake being the more likely to be made, because there were frequently pains in the region of one kidney, generally the right, and, as often happened when neuralgia of viscera was accompanied by vaso-motor disturbances, "pain on pressure." The second class of cases to which he directed attention, consisted of studious or sedentary men of middle age, who suffered from mental depression and "nervousness," with, perhaps, agoraphobia or claustrophobia, or both. In these cases albumen was often found in the urine, and in some instances its appearance alternated with that of sugar in small quantities, pointing significantly to the location of the excitement, or the glance of the reflex, and suggesting the fact of nerve-centre disturbance as the cause of the malady. He pleaded for the recognition of these varieties of albuminuria without kidney disease, and, insisting strongly on the scientific error of placing the albuminuria in the first of these cases, with the result of creating needless alarm, and in too many instances producing grave mental depression, urged a wiser and better use of the urinary test-box, recommending that the urine of all patients should be examined both for albumen and for urea. Under this more extended practical and more precise method of research, he believed it would be found that albuminuria without kidney disease was by no means uncommon.

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PARALYSIS FROM PERIPHERAL IRRITATION.

WHEN a mixed nerve-filament receives an injury, it is not unusual to observe a complete loss of sensibility and movement in the parts supplied by the nerve of which this filament is a branch. But it is more rarely that one observes notable disorders of sensibility and mobility in regions more or less removed from the seat of the injury, and thus far no very satisfactory explanation of this phenomenon has been given. Several cases of this character were seen during the War of the Rebellion, and Keen, Mitchell, and Morehouse have published seven cases in which paralysis supervened immediately upon the receipt of the injury. Mitchell has recorded two very interesting cases: one of a wound of the thigh probably involving the sciatic nerve, in which, besides the natural result of paralysis of the right leg, there was also reflex paralysis of the right arm; in the other, in which the right crural nerve appeared to be injured, the right leg and arm were paralyzed.

Interesting cases of this kind were also seen in the Franco-Prussian war, but differing as to the date at which the paralysis began after the injury. In these the paralytic troubles commenced some time after the traumatism, and hence it would at first seem that they should not receive the same interpretation as the first-mentioned cases.

Bumke reports a case of gunshot wound of the chest, in which, fifty-four days afterward, there was great weakness of the right upper extremity, with partial atrophy of the forearm and hand and contractures of two fingers. Leyden reports a case in which paralysis commenced a year after the traumatism, and another in which it suddenly appeared three years afterward. Schwahn reports a similar case.

Bidon reports (*Revue de Médecine*, April, 1884) a most interesting case. The patient was quite severely wounded, by the breaking of a porcelain pôt-de-chambre upon which he was sitting, in two places, the one just in front of the coccyx in the median line, the other immediately behind the anus, and formed by the junction of two incisions. Ten days afterward small pustules appeared about the coccyx, in the genito-crural folds, and on the internal aspect of each thigh. They attained their maximum development in twenty-four hours, but were succeeded by others, and did not entirely disappear for about two months. About one month after the injury the patient began to complain of pains in the right knee and along the crest of the ilium, erythematous spots making their appearance in these places at the same time; subsequently ulcers developed at these points. Just as the patient seemed on the point of recovery a new set of very interesting symptoms appeared. He began to feel weak in the legs and complained of formications; the upper limbs became weak and delicate movements were impossible; and when the paresis became more generalized anæsthesia set in. These symptoms attained their maximum in about a month, and three months after the injury the man was scarcely more than what might be called a thinking vegetable. The muscles of the neck and face and of respiration were unaffected, the limbs and trunk were paralyzed and anæsthetic, and the tendon reflexes were abolished. This state lasted about fifteen days, when, under the influence of strychnine, the patient began to improve, and was practically well in another month. Professor Lépine reported, in 1875, two very interesting cases of this character, in which the paralysis was caused by thoracentesis. The paralysis in one case lasted for one hour and then gradually ceased. The patient was subsequently aspirated several times, and each time the same phenomena occurred.

Seeing, then, that paralysis may supervene at a time more or less remote from the time of the injury, it is proper to inquire: Are these phenomena simple coincidences or are they due to the traumatism? And how are they produced? With regard to paralyses coming on immediately after the traumatism, it would seem that they must necessarily be the result of that traumatism; for there is no other cause by which they can be explained. Just why an injury should cause these symptoms cannot be very satisfactorily explained. Certainly the explanations thus far offered by Vulpian, Brown-Séquard, Jaccoud, and Weir Mitchell are somewhat contradictory and not entirely satisfactory. Bidon considers paralysis coming on immediately after traumatism as the result of the injury, and thinks that it is sometimes caused by reflex vascular constriction acting on various parts of the cord (Brown-Séquard), sometimes from an abolition of the medullary functions by shock (Weir Mitchell), and made more persistent by the continuity of the excitation due to the wound (Jaccoud).

The paretic accidents coming on some time after an injury are also due to the traumatism. In the nine cases cited by Bumke, Leyden, Schwahn, Lépine, and Bidon, there was no other paralysigenic cause. The pathogenesis of these paralytic accidents is easily understood if the cases now on record are compared with typical examples, notably the one recorded by Trousseau, in his *Clinique*, I., 492, of diphtheritic paralysis. From a symptomatic point of view there is a very great resemblance between the two.

Traumatism, then, may cause paralysis due to lesions of nerve-filaments (ascending neuritis) and of the cord; and the best name for this paralysis is that proposed by Weir Mitchell, *paralysis from peripheral irritation.* It may be added that Landouzy has arrived at almost exactly the same conclusions as regards paralyses following acute diseases.

COUNTERFEITING FISH.

THE tricks of trade are quite frequently divulged in court when the partners in the deception fall out with each other. Sugar has its glucose, butter its oleomar-

garine, cloth its shoddy, wine a multitude of injurious concoctions, but it probably is not often that fish are counterfeited, as was shown to be the case in a recent suit in this city. It appeared there that French sardines command a high price in the market, almost fifty per cent. higher than the fish caught in our waters. It is a great temptation, therefore, to pack these latter sardines in boxes with French labels, and the morals of trade are unfortunately not proof against such allurements. A contract was made by a firm in this city for a large lot of "domestic" sardines with "fancy" labels. These "fancy" labels were generally understood to mean labels stating that the sardines were caught and packed in France. For some reason the sardines were not accepted when tendered, and suit was brought for their value. In defence, it was alleged that the contract was a void one, being against public morals and could not be enforced. This was the view taken by the Court, which held that the practice was a dishonest imposition upon consumers who were without knowledge of the deception. It was said by the judge: "Consumers may not be wronged by eating American sardines while they think they are eating French sardines. One may be as wholesome and savory as the other, but undoubtedly the labels are not used to instil this information into the minds of the eaters. They are used to get a higher price than would be given if the label told the fact as to the origin of the fish." The plaintiff's testimony disclosed that a firm packing American sardines tendered a large quantity to a merchant in the trade, with the names of American packers on the label, but they were refused, the merchant declining to take any goods with English names.

THE GERMAN CONGRESS OF INTERNAL MEDICINE.

THE meeting of the German Congress of Internal Medicine, of which we present a report elsewhere, seems to have been one of much importance. The debate upon pneumonia will be read with especial interest, since it shows how firmly the view that pneumonia is an infectious disease has become fixed in the minds of leading German authorities. Almost universal credence was given also to the view that the disease has a special organism that has some important relation to the disease. It was admitted, however, that this organism cannot always be found, that it has a varying effect upon lower animals, and that it has no anatomical character which peculiarly and completely differentiates it from other microscopical parasites.

The scientific work was characterized by a considerable prominence bestowed upon the special germs of disease. The studies which Löffler reported of the micro-organisms of diphtheria are particularly interesting, as showing the results of the application of the gelatine-culture method to the pathology of this disease.

Among the papers of the meeting were several that were highly practical in character, such being in especial the papers upon papayotin and naphthalin.

It is possible that the learned societies of other countries might with profit adopt the practice of the German Congress as regards the papers and debates. These latter were few in number, the participants were carefully prepared, and the results were in all cases valuable contributions to medicine.

Few papers, but good ones, would be an excellent motto for medical societies and conventions everywhere to adopt.

News of the Week.

A DISPENSARY WILLING TO DIVIDE SOME OF ITS PECUNIARY PROFITS WITH ITS MEDICAL STAFF.—The North Eastern Dispensary of this city has recently divided several hundred dollars among its medical staff in acknowledgment of valuable services rendered the institution. The sum was given for that purpose by one of the managers, at the instance of Dr. Alex. Hadden, the founder of this dispensary, instead of appropriating the same for an enlargement of the building. This is an example worthy of imitation by sister institutions. Most of the dispensaries of the city have surplus funds every year, which are invested by the managers for what are called current expenses, and some of them are actually growing rich. It is otherwise with the medical men who are doing the work in these dispensaries. Every dispensary patient treated by a doctor is so much actually out of the doctor's pocket, for very few patients are too poor to pay something. It is gratifying, however, to learn that one institution at least is willing to recognize the value of its working staff in more ways than one. It would be interesting to know how much could be done in this direction as borne out by an examination of the balance-sheets of the out-patient department of the New York Hospital, the Demilt, North Western, and New York dispensaries? But the managers may say in extenuation of apparent neglect, "Why should we pay men who are willing to work for nothing?"

THE LATE DR. A. RANDOLPH MOTT.—At a special meeting of the Manhattan Medical and Surgical Society, called May 17th, the following preamble and resolutions were adopted:

Whereas, We have learned with profound sorrow and deep regret of the untimely death of our esteemed fellow-member and dear friend, Dr. Armistead Randolph Mott, Jr., who fell a victim to typhus fever, contracted in the discharge of his duties as Chief Physician to the Riverside Hospital, May 6, 1884; be it therefore

Resolved, That in his death this Society deplores the loss of an earnest and valued member, and one who by consecrating his best years to faithful work in a dangerous field has honored his profession.

Resolved, That his associates mourn the death of one whose noble character had won their warmest affection, and whose devotion to his profession offers an example worthy of the highest emulation.

Resolved, That these proceedings be recorded in the minutes of this meeting, and that a page of the records of this Society be inscribed with his name and the dates of his birth and death; that a copy of these resolutions be forwarded to his bereaved family, and that we tender to them the sorrow and sympathy which we so deeply feel.

Resolved, That the editors of THE MEDICAL RECORD and *The Virginia Medical Monthly* be respectfully requested to publish these resolutions.

THE SIMS MEMORIAL FUND.

To the Medical Profession and Others throughout the World:

The great achievements of Dr. J. Marion Sims call for some more lasting testimonial than obituaries and eulogies. To him medical science is indebted for much brilliant and original work, especially in gynecological surgery. Those who have been benefited by his teachings and new operations, and such as have had the direct advantage of his personal skill are among the first to recognize and acknowledge this debt.

To him is due the honor of giving the first strong impulse to the study of gynecological surgery in America.

It is believed that the medical profession everywhere, the vast number of women who owe their relief from suffering directly to him, and those who realize the benefits he first made possible, will gladly unite thus to honor the man through whose original and inventive genius such blessings have been conferred upon humanity.

At the suggestion of many friends, therefore, the subjoined committee has been organized, and it is proposed that a suitable monument be erected to his memory in the city of New York.

To this end the active co-operation of the medical profession and the many other friends of Dr. Sims throughout the world is respectfully solicited. Contributions of one dollar and upward may be forwarded to the journal which has been constituted the treasury of this fund—THE MEDICAL RECORD, New York.

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Reports of Societies.

WEST VIRGINIA MEDICAL SOCIETY.

Seventeenth Annual Session held at Clarksburg, Va., May 21, 22, and 23, 1884.

(By Telegraph to The Medical Record.)

WEDNESDAY, MAY 21ST—FIRST DAY.

The seventeenth annual session of the West Virginia Medical Society convened at half-past three o'clock in the City hall of Clarksburg.

Prayer was offered by the Rev. J. F. Book De Agerstell, of Keyser.

The President being absent, on account of sickness, the chair was occupied by Dr. A. F. Steifel, of Wheeling.

Dr. D. P. Morgan, of Clarksburg, Chairman of the Committee of Arrangements, delivered

THE ADDRESS OF WELCOME

to the delegates.

His Honor, the Mayor of Clarksburg, then spoke a few words, offering the visiting doctors the courtesies of the town.

Dr. J. E. Reeves, of Wheeling, Chairman of the Committee of Publication, reported that three hundred copies of the sixteenth annual report had been issued at a cost of eighty-seven dollars.

Dr. W. F. Vankirk, Treasurer, reported one hundred and forty-eight dollars balance in the treasury.

The report of the Committee on Climatology and Epidemics was read by Dr. R. W. Hall, of Moundsville.

The following is an abstract of that part

ON EPIDEMICS.

West Virginia had been unusually fortunate this year, having had no very severe epidemics, so far as the committee had been able to ascertain. Nearly all, or perhaps all, the diseases indigenous to the State have been represented, epidemic as well as endemic in character. The diseases most prevalent have been diseases of the organs of respiration. First of these in frequency is bronchitis. This disease among small children was frequently of the capillary variety and attended with a high rate of mortality. Next in point of frequency is pneumonia, usually very fatal, especially where the disease occurred bilaterally.

LARYNGITIS

comes next, occurring in most parts of the State, notably in the eastern and northwestern parts.

Dr. R. S. Donohoe, of Fairview, Hancock County, says that many a doctor, with either an itch for notoriety or an itching palm, denominates this disease diphtheria. The disease usually commenced like an ordinary cold, running a definite course, and usually ending in recovery.

PHARYNGITIS

also occupied a prominent position in the list, but the average duration was usually short and the disease mild and manageable.

Whooping-cough occurred in Harrison County, frequently complicating other diseases. When it complicated or was complicated with measles it became formidable and exceedingly difficult to control. Phthisis had its full measure of representation, sending an increased number of its victims to the grave.

From advices they were led to believe that diphtheria prevailed over nearly two-thirds at least of the State, but frankly confessed that they had not seen a case within the year. Dr. R. S. Donohoe, of Fairview, and Dr. W. H. Sharp, of Volcano, think there is

GREAT LAXITY AMONG THE PROFESSION IN THE USE OF THE TERM DIPHTHERIA,

some physicians having a great number of cases, with marvellous success, frequently curing their patients in from two to five days. It seemed to the Committee that probably there should be some allowance made for errors of diagnosis in this disease, that the number of cases of pharyngitis should be greater, and the number of cases of diphtheria should be less. Diphtheria has not been attended by as high a rate of mortality as is the usual habit of the disease, and the foregoing may be the explanation. The causation has been variously stated as decaying vegetation, foul emanations from stables and cesspools, decaying animal matter, bad water, unfavorable hygienic conditions, in insufficient clothing, scanty and poorly cooked food, contagion, etc. It may be of interest to quote from Dr. Carpenter's report to us. He says:

"Diphtheria has been rare during the past year. However, my own family, consisting of eleven persons, has just emerged from a visitation of the disease. The cases graded from the severest to the mildest in form, no one in the household escaping. As the outbreak of the disease was confined to my own family, there was of course a local cause, and this I assign to foul emanations from the cellar, which had been flooded in January. I had stowed away in the cellar all the vegetables and fruits intended for winter consumption. On account of dampness there had been unusual decay of some, emitting poisonous gases, which found easy access to the general family-room, situated immediately over the cellar and separated by the floor only." Now it would seem from this statement by Dr. Carpenter that this outbreak was due to decomposing vegetables and fruit. So far as they were aware this condition does not always maintain. The history, together with the alleged causes, of different outbreaks of this disease are various. About three years ago an outbreak was observed in a family living on the top of a hill. The water drained from the house in almost every direction; there was no cellar; the house was high enough off the ground to allow free ventilation under it. The house-yard and adjoining grounds were kept scrupulously clean; the stable was about one hundred and fifty yards from the house and below the water supply. Two children were simultaneously attacked by the disease, which was severe in its character, ending with paralysis of the vocal cords in one case and paralysis of the lower extremities in the other. Both cases finally recovered. It was a remarkable fact that no case of the disease at this time was known to exist within a radius of ten miles. The cause of this outbreak had always been a mystery.

What the materies morbi is, with regard to this disease, they were persuaded, remains in the future to be determined. Whether it be bacillus, microcosm, or a fermentation principle we know not, although investi-

gators are sailing along on the great sea of bacterianism with every inch of available canvas spread to the breeze, and with commendable zeal are striving earnestly to fathom the hidden mysteries connected with this and many other diseases, endeavoring to reconcile the bacterian theory with causation. Though they had for this class of workers the highest regard, yet they would insist that, important as this subject is, attention should not be directed entirely from the significance of the facts presented by clinical observation. This they thought a matter of great importance and must largely add to the evidence that finally establishes the cause of diphtheria.

There is relatively but a small portion of the State in which malaria exists.

Typhoid fever had been present in nearly every portion of the State, but had not been epidemic so far as the Committee was informed. There had been, however, a great many fatal cases. These were usually preceded by hemorrhage, either from the bowels or nose, and usually died in collapse or from exhaustion. Dr. R. S. Donohoe thinks typhoid fever always arises *de novo*.

Scarlet fever still lingered in the State throughout the year, but was very mild in its type, so mild that it was designated by the laity as scarlet rash—they claiming that it was not scarlet fever but a distinct disease. That scarlet rash so-called is only a mild type of scarlet fever some members of the profession deny.

A few cases of typho-malarial fever were reported by Dr. W. H. Sharp, of Volcano. He stated that quinine did not seem to shorten the duration of the disease, or in any way affect it favorably.

Several epidemics of measles had occurred in different localities of the State, most notable that of Harrison County and Marshall County; in the former it was frequently complicated with whooping-cough, and was then very formidable and hard to manage; in Marshall County it was complicated frequently with bronchitis, and was fatal in some few instances. A fact worthy of note was that persons became infected with the disease that had had a previous attack. Those cases, however, were uniformly mild, with a very short duration.

Parotitis had occurred only in one local city, so far as they were able to learn, and was exceedingly mild in its course.

The foregoing were the diseases of which they were informed, and deemed worthy of mention. There had been a number of puerperal accidents, also a number of important and unusual cases.

THURSDAY, MAY 22D—SECOND DAY.

The Session convened at 9 A.M. Prayer was offered by the REV. JACOB BRITTINGHAM. DR. C. T. RICHARDSON, of Charlestown, the Vice-President, occupied the Chair.

DR. GEORGE ROHE, of Baltimore, in discussing Dr. Hall's paper, spoke first of the

CONTAGIOUSNESS OF DIPHTHERIA.

The opinion, often expressed, that it is not contagious, is likely to do great harm. There is remarkable individual susceptibility to the disease. Sewer-gas and unsanitary conditions are only predisposing causes. Diphtheria does not begin *de novo*. He cited a number of instances, one personal, in which diphtheria had arisen by contagion. The symptoms of quinsy and diphtheria are not the same in adults. He uses quinia and iron in frequently repeated doses. Local treatment was comparatively unimportant, but he attached great importance to the operation of tracheotomy in laryngeal phthisis. As regards typhoid fever, he did not believe that it is usually produced by contaminated drinking-water, and did not believe in its *de novo* origin.

DR. W. K. CURTIS read the report of the Committee on Necrology.

The report of the Committee on

NEW REMEDIES

was read by DR. R. M. BAIRD, of Wheeling, in which particular reference was made to convallaria majalis jequirity, kairin, and paraldehyde.

DR. J. P. MILLER, of Buckhannon, read a paper on the

SUCCESSFUL TREATMENT OF PHTHISIS.

He used picrotoxine and atropia for night-sweats only when the temperature is normal or subnormal, and depended on fluid extract of yerba santa; as a solvent of tubercular or fibrinous deposits in lungs on iodide and carbonate of ammonia.

DR. FLEMING HOWELL, of Clarksburg, read a paper describing the removal of a silver dollar impacted in the cricoid cartilage by œsophagotomy.

DR. W. H. SHARP, of Volcano, read a paper on the

PREVENTION OF PUERPERAL FEVER IN LABOR CASES.

He presented an historical review of the subject, and reached the conclusion that no other precaution than strict cleanliness is needed. The use of antiseptics in private practice is not necessary.

DR. GEORGE H. ROHE, Delegate from the Medical and Chirurgical Faculty of Maryland, read a paper on the

TREATMENT OF THE LATER SYPHILITIC LESIONS OF THE SKIN AND SUBCUTANEOUS CONNECTIVE TISSUE.

The writer of the paper expressed the opinion that the view of Hutchinson, that the so-called tertiary manifestations of syphilis are merely sequelæ and not symptoms of the syphilis, could not be accepted without more definite evidence in its favor than had as yet been furnished. The tubercular syphilide and the subcutaneous gummata were regarded as anatomically identical. The author said the prognosis of syphilis was generally favorable. He regarded it as curable, and deprecated the hopeless prognosis given by so many authorities. In the treatment of tertiary syphilitic lesions potassium holds the first place. It should be given in free doses—twenty grains four to six times daily are sometimes necessary to produce the effect desired. Mercury is of much less value in this than in the secondary period, but should not be entirely omitted. Tonics are of importance in all, to counteract the specific effect of the disease upon the red corpuscles. Good food, fresh air, cleanliness, and moderate exercise should be insisted upon. Cod-liver oil, and iron, in the form of tincture of the chloride, or pills of the proto-carbonate, are often indicated. Locally the application of mercurial plaster to the lesion, before ulceration, assists in promoting free absorption; after ulceration the syphilitic infiltration should be scooped out with the curette and iodoform applied.

PENNSYLVANIA STATE MEDICAL SOCIETY.

Thirty-fifth Annual Session, held at Philadelphia, Pa., May 14, 15, and 16, 1884.

(Special Report for THE MEDICAL RECORD.)

THURSDAY, MAY 15TH—SECOND DAY.

THE Association was called to order promptly at 10 A.M., the attendance not being as large as on the first day.

The report of the Treasurer, DR. BENJAMIN LEE, of Philadelphia, was read, and showed a balance on hand of $2,451.65, with several counties in arrears for dues.

DR. W. H. DALY, of Alleghany, delivered

THE ADDRESS IN MEDICINE,

and gave a sketch of the advance made in the science for the past year as to investigation and practical knowledge. The work of Koch, Pasteur, Virchow, and others was noticed, but he questioned the utility of their germ theory discoveries in a practical way. The germicides were in constant use, but their value was unfixed. The lack of government aid was noted and the great aid of clinical inquiry was generously praised. He thought the bedside was the place to gain useful knowledge for use, for it re-

quires no help from the government and it brings the surgeon and physician directly to a knowledge of disease and its effect, forms not laid down in the books. While we are looking for the bacillus tuberculosis, we must not cease to give prompt relief to suffering patients, and add to our therapeutics for immediate benefit and to assist our brethren. By patient work we can only hope to advance. It was an obscure country doctor, Jenner, who discovered vaccination; and it was his clinical observations in the dairies that showed him that cow-pox of the maids gave them immunity from small-pox. He had no doubt that Koch's germ theory would be worked out, but in the meantime we should go on with our minor studies. He believed that to study true science would bridge over our difficulties, even with the homœopaths. Men are now living who will see that medical dogma rendered ridiculous. It will not do to be arbitrary, we must be pure, honest, and just, large and observant in our labors, without resorting to dogma.

Dr. Charles W. Dulles, of Philadelphia, read a paper on

DISORDERS MISTAKEN FOR HYDROPHOBIA.

He alluded to the literature of the disease, and said it was enormous and apparently beyond all reason, and he related his experience during two years of close investigation, and asserted that no less than thirty complaints have been mistaken for hydrophobia. The disease is known mainly by convulsions, and the inability to take liquids; yet there are other very important phenomena, and the revolting at liquids is known in other affections. Some of these disorders similar to hydrophobia will deceive the most experienced physicians at times. They are disorders of the alimentary canal, of the nerves, and of the respiratory and circulatory systems. Symptoms are sometimes presented in mania-a-potu, angina pectoris, of rabies humana, and cases were cited to show how errors may be avoided. He noted that uræmia is frequently mistaken for hydrophobia because of the nephritic convulsions.

Prof. Traill Green, of Lafayette College, declared that there were more rabies from rum than from mad dogs. If a man dies of hydrophobia it is known all over the world, but if a hundred die from alcoholic convulsions, almost like those of rabies humana, no note is made of it. The disease of hydrophobia is very rare, even in dogs, and if doctors will read "Hewitt on the Dog," they will learn more about canines than from any other source. Dr. Green then challenged the members of the Society to say whether they had ever seen a case of hydrophobia. Several members arose at once and answered affirmatively, Dr. H. C. Wood saying that he had seen four cases.

Dr. Van Harlingen then read a paper entitled

THE PRINCIPLES OF EXTERNAL TREATMENT IN DISEASES OF THE SKIN.

He sketched out a scheme by which the various outward applications commonly employed were arranged according to their effect, as protectives, sedatives, astringents, anæsthetics, stimulants, caustics, and mechanical means of treatment, giving under each head the effects of each class of applications so far as known, together with a list of individual medicaments belonging to the class.

Dr. J. V. Shoemaker read a paper on

JEQUIRITY (ABRUS PRECATORIUS LINNÉ), ITS USE IN DISEASES OF THE SKIN.

The use of jequirity in affections of the eyes, first empirically developed by the natives of Brazil, has been closely studied by eminent ophthalmologists, and pronounced by them as of marked value in granular affections of the lids, though so powerful as to require great caution in its application. Its result, when so applied, is to produce a specific ophthalmia of a croupous nature, which destroys the granulations and leaves them in a favorable condition to heal. This had led the writer to the deduction that it might be applicable to other morbid processes consisting in exuberant granulations, proliferating cell-growths, and with a tendency to remain in a slowly degenerating condition, where caustics, escharotics, and superficially destructive measures seem indicated.

Selecting lupoid conditions, epithelioma, sloughing ulcers, etc., as tests of his theory, he found that a weak infusion, such as is used in ophthalmic practice, was of little avail, and obtained as a more serviceable application an emulsio-infusion from Dr. L. Wolff. This, when first applied, produced no pain, but soon set up a specific inflammation, which at times assumed quite alarming proportions, œdematous swelling, with erysipelatous appearance of the surroundings, accompanied by febrile symptoms, though this occurred only in applying it to extensive surfaces, and in highly sensitive and irritable patients. The products of this inflammation cast an immense crust on the surfaces, under the protecting influences of which the constructive process rapidly developed, so that after either forcible detachment, or better, spontaneous casting off of the cuirass-like crusts, new and healthy surfaces were apparent, and on repeated applications cures were speedily effected by it.

Dr. Joseph B. Potsdamer followed with a paper entitled,

BRONCHITIS AND PNEUMONIA OF RHEUMATIC ORIGIN,

in which he discussed the pathology, diagnosis, and treatment of the disease, salicylic acid and its salts or phosphate of ammonia being given when uric acid and urates are found in the urine, lemon-juice when phosphates were present.

A PLEA FOR CHEMISTRY.

Dr. Traill Green, of Easton, read a most practical and valuable paper with this title. As a result of very many years of observation and experience, he has come to the conclusion that very few physicians know as much about chemistry as they ought to, and even some druggists are very deficient in this knowledge. To illustrate the latter point, he related the experience of a friend of his, who went into a drug store and asked for *chlorate* of sodium. The druggist told him, and persisted, that this was table-salt, not seeming to understand, as Dr. Green said, that there is a difference between a *chlorate* and a *chloride*. He considers it essential that physicians should know more about chemistry, in order that they might avoid prescribing explosive mixtures, as has frequently been done. He warns us that potassic chlorate, glycerine, and tincture ferri chlor. will make an explosive mixture. Potassic chlorate and catechu have been used as a dentifrice; if there is much friction in cleaning the teeth this mixture will explode. The following formula was ordered by a physician for a woman:

℞. Argenti oxidi..... gr. xlviij.
Morph. muriat..... gr. j.
Ext. gentianæ..... q. s.
Ft. pil. No. xxiv. and silver them.

The woman placed these pills in her bosom for safe keeping, and in a short time an explosion took place. Some nitric acid was put into a presumably clean vial; very soon an explosion, with a loud report, occurred, when it was ascertained that an almost inappreciable quantity of glycerine was in the vial.

In view of the fact that permanganate of potassium has been highly recommended of late in amenorrhœa, Dr. Green advises us not to use an excipient for it that is very readily oxidized, as glycerine; talc or kaolin will be safe. Fluid extract of uva ursi and certain samples of spirits of nitre will form an explosive mixture, as will also, sometimes, chromic acid and glycerine.

The ignorance of chemistry he attributes to the fact that its importance is not sufficiently impressed upon the student and physician, which negligence he greatly deprecates.

Dr. Benjamin Lee read a paper on

MASSAGE, THE LATEST HANDMAID OF MEDICINE,

in which he considered the influences of the method in modifying the processes of nutrition, removing effete material from the system, stimulating assimilation and invigorating digestion, soothing nervous irritability and relieving nerve pain, removing morbid deposits from the neighborhood of inflamed joints, and thus restoring them to their normal mobility, equalizing the circulation and sending the blood from the hot head, congested spine, or laboring heart, into the cold extremities.

DIPHTHERIA.

Dr. L. B. Kline, of Catawissa, read a paper on this subject, in which he stated his belief that the disease was primarily local, from the fact that it was usually sudden in its onset, and affected only mucous membranes that are so situated as to be especially exposed to poisonous particles floating in the atmosphere, and that the disease was largely spread by contagion. He considered topical applications to the affected parts of great importance, caustic applications should, however, be discarded, as their utility is doubtful, and injurious effects are likely to ensue from the mechanical irritation produced. The local applications which he relied upon were equal parts of the tincture of chloride of iron and glycerine applied with a mop, also carbolic acid and glycerine, applied in the same way. Where the patient is old enough to gargle, the following is one of the most valuable combinations that can be employed:

℞. Acid. lactic..... gtt. xx.–xxx.
Spts. rectif..... ℥ ijss.
Glycerine..... ℥ ijss.
M. S.—Gargle frequently.

The lactic acid had a solvent effect upon the false membrane. One of the most valuable and indispensable local remedies was hot medicated vapor. His manner of using it was in the form of hop-tea, to a pint of which twenty or thirty drops of carbolic acid is added. In malignant cases this should be used every half hour, and continued from ten to fifteen minutes at a time.

The speaker also highly recommended, from his own experience, the vapor of slacking lime. As constitutional remedies, he recommended tincture of chloride of iron, quinine, chlorate of potash, and permanganate of potash. Alcoholic liquors are recommended as valuable to prevent systemic infection and for their stimulating and supporting qualities. They should be employed early and continued throughout.

ADDRESS IN OBSTETRICS.

In making this address Dr. Jacob Price, of West Chester, gave a very interesting history of obstetrics in this country. A hundred years ago it was not recognized in the curriculum of the medical college. The first medical school in this country, established in Philadelphia in 1765, contained no provision for the study of obstetrics. After some time it was attached to the chair of anatomy. In 1810 it was made a distinct chair in the University of Pennsylvania, but it was not until 1813 that attendance upon lectures in this branch was made a requisite for graduation.

Dr. Price then spoke about the pernicious vomiting of pregnancy, which he considers due to congestion or inflammation of the uterine cervix, and which he has succeeded in relieving by the use of iodine, crystallized carbolic acid, and tannin, of each two drachms, dissolved by heat in an ounce of pure glycerine, and applied on tampons to the cervix, tri-weekly.

In discussing the treatment of abortion, the speaker took strong grounds against *immediate* instrumental interference to remove the secundines, and reprobated the teaching of some of the younger writers, who would make every miscarriage an excuse for scooping out the cavity of the uterus. Such active interference was uncalled for and mischievous in a vast majority of cases. The use of the vaginal, or cervical tampon (disinfected) will, in most cases, be followed by the almost painless, and usually safe expulsion of all the contents of the uterus, and thus the dangerous element of traumatism be avoided. Yet when operative means really become necessary Dr. Price considers that the smooth wire curette of Thomas, or the larger one described by Mundé, is the safest instrument that can be used. It is far less painful than the finger, more efficient, and if used carefully is less liable to produce injury.

He strongly reprobated any manipulation of the os uteri during the first stage of labor, and especially any effort at its rapid and forcible dilatation. To the care of the perineum, during its extreme distention as the head descends, so as to prevent laceration at the moment of delivery, the speaker devoted considerable attention. The descent of the head must be prevented by firm pressure directly upon it, until the perineal tissues have had time to yield slowly, yet sufficiently to allow the head to pass safely.

Placenta prævia claimed considerable attention in the address. Shall the pregnancy be allowed to continue? is a question that in every case has to be met at the onset. After careful study of the whole subject, one cannot avoid the conclusion so well stated by Lusk, that the result depends in a large measure upon the personal qualities of the physician in charge. A self-possessed man, cool, resolute, and with clear ideas of the anatomical conditions to be dealt with, will, if summoned in season, deprive even placenta prævia of a good share of its terrors. The pathology and treatment of puerperal convulsions received careful attention in the address.

In treatment, the deleterious influence of mental excitement, exposure to cold, and indigestion are to be kept in mind. When an attack threatens, full doses of bromides, of hydrate of chloral, and of morphia (the latter hypodermatically) are indicated; when the action of the kidneys is deficient the muriate of pilocarpine (hypodermatically), aided by hot foot-baths to bring on diaphoresis, are very beneficient. But perhaps the most efficient of all remedies at this time is the free abstraction of blood. No other means can be so safely relied upon to lower arterial tension, diminish irritation of the vaso-motor and convulsive centres, and restore to the kidneys their normal functions. The question of puerperal fever was discussed, and the more recent views on the subject stated, and Dr. Price closed by discussing the question of women in medicine, leaning to the view that the profession was not within their sphere.

OBSTETRICAL FORCEPS JOINTED AT THE JUNCTION OF THE BLADES AND SHANKS

was the title of a paper by Dr. J. A. McFerran, of Philadelphia.

After describing the detailed uses of the instrument, he claimed that it had all the advantages of the ordinary forceps, as a tractor, as a lever, and in the independent application of the blades, while the disadvantages were dropped by simply placing a joint so that the motions of the fœtal head shall not be interfered with.

Dr. Mary H. Stinson, of Norristown, then read a paper on the

WORK OF WOMEN PHYSICIANS IN ASIA,

which gave an excellent history of the labors of missionary physicians. It was stated that the large sum of $414,003.70 had been collected during the year 1883, by four Women's Foreign Missionary Societies, which gives some idea of the magnitude of their work. The necessity for educated women physicians in oriental countries was dwelt upon, and it was stated that thirty-six women medical missionaries had been graduated during the past year. Of these, fourteen had been sent

to India, fifteen to China, and two to Japan; one is under appointment for Damascus, and five for China. There are now eight undergraduate missionaries in the class in the Women's Medical College, of Pennsylvania.

The Society then adjourned for the day.

FRIDAY, MAY 16TH—THIRD DAY.

THE attendance at the last day's session was not so large as that of the day before, and when President Smith's gavel fell there were not more than one hundred members in the room.

The first business transacted was the passage of a resolution offered by DR. RICHARD J. LEVIS, of this city, regretting the absence of Dr. W. L. Atlee, of Lancaster, who is confined to his home by illness.

BODIES FOR THE DISSECTING-TABLE.

The subject of the distribution of dead bodies to medical institutions was brought up by DR. JOSEPH LEIDY, the Professor of Anatomy in the University of Pennsylvania, and President of the Anatomical Board of the State. The subject, he said, was one of great importance and merited the earnest attention of every surgeon in the State. The time had come when it was important that something should be done, looking to

AN EQUAL DISTRIBUTION OF DEAD BODIES AMONG SURGEONS.

He offered a resolution requesting the members of the profession to aid the Anatomical Board in carrying out the acts of Assembly in relation to the distribution of cadavers for dissection.

DR. W. H. DALY, of Pittsburg, said that he was in hearty accord with the resolution. There was need, he thought, of about seven hundred bodies yearly for the surgical classes throughout the State. There were enough bodies in some counties, but not in others. The trouble was that the bodies were not equally distributed. The law placed an effectual check on grave-robbing. All bodies must now be receipted for, and superintendents of public institutions are thus protected against fraud. No fault could be found with the law. It was the very best in the country, and under the Anatomical Board it was sure to be carried out, thus insuring to cemeteries full immunity from ghouls.

DR. TRAILL GREEN, of Lafayette College, said that he also favored the resolution, and it was then unanimously adopted.

DR. HENRY LEFFMAN, of Philadelphia, offered a motion which was adopted, directing the Secretary to send copies of the resolution to the County Medical Societies.

DR. WILLIAM S. LITTLE, of Philadelphia, delivered the Address in Ophthalmology, selecting for his subject

THE VALUE OF PUPILLARY SYMPTOMS IN GENERAL DISEASE—AN ANALYSIS OF ONE THOUSAND CASES.

He said that after the hospitals for chronic diseases had admitted ophthalmic surgeons to their wards, ophthalmic medicine rapidly developed, and soon hospitals for acute diseases claimed their services. The past twenty years has been the era for developing ocular symptoms in general disease. Medical education has felt the same impulse, and post-graduate instruction is the outgrowth of the success of instruction in ophthalmic hospitals abroad and at home.

Medical ophthalmology has been the special factor in developing ophthalmic medicine.

In his cases, studied at Elwyn, Pa., at the Institution for Feeble-Minded Children, he found lesions of the eye-ground in thirteen per cent. of the inmates. The study of the visual field for perception of light and color is another means of help in studying general disease. Ophthalmoplegia externa and interna have received the greatest attention of late. Pupillary symptoms belong under the head of ophthalmoplegia interna. The statistics of many observers vary largely as to their presence in disease, especially of a nervous type. He had believed the variation to be due to non-recognition of the symptoms being produced by intra-ocular and extra-ocular conditions; only the latter are of any value in general disease, and the former must be excluded, unless both conditions are recognized.

After giving the physiology of pupillary movements and describing how to study the normal and abnormal pupil, the results of a personal examination of three hundred and fifty cases at the institution already referred to were given. The examination was thorough, and intra-ocular and extra-ocular conditions, as factors, studied. Ophthalmoplegia externa was noted in only two cases. Ophthalmoplegia interna, from central causes or associated with the diseases exhibited, was present in seventeen per cent.

One thousand cases have been studied with the following results: 602 males, 224 per cent. pupil symptoms; 398 females, 248 per cent. pupil symptoms. Total, 1,000 cases, 235 per cent. pupil symptoms.

A paper on

A FORM OF EPITHELIAL MYCOSIS

was read by DR. ALBERT G. HEYL, of Philadelphia.

The disease described in this paper has long been known to ophthalmologists, and has been principally studied by them. In its graver forms the general symptoms are of far more importance than those observed in the eye, as the disease is frequently fatal. Leber, within a few months, has given a full description of a parasite found *intra vitam* in the conjunctival débris, and post mortem in the epithelium of the renal pelvis and in the small intestine. This parasite attacks the epithelial cell, inducing fatty degeneration of its structure. The dead cells accumulate in lamina, giving rise to a characteristic dry parchment-like appearance, the so-called conjunctival xerosis. The disease is usually ushered in by hemeralopia. This symptom, which is associated with the conjunctival xerosis, may last a month or two, when corneal ulceration commences.

About this time general symptoms appear. There is rise in body temperature, frequency of pulse, a dry, harsh condition of the skin, the hair on the head becomes dry and lustreless. Along with this a peculiar state of apathy is developed. Persistent purging and vomiting occur, and finally broncho-pneumonia, to which the patient succumbs. All cases do not run precisely this course. Some do not proceed beyond the stage of hemeralopia, in others the corneal ulceration appears after the inception of the general symptoms. In some the apathetic state is the most striking symptom. In some constipation exists instead of the purging. The existence of a parasite in the conjunctiva in this disease was known before Leber's researches. But Leber has not only given a clear account of it, but also shown that it attacks the epithelial cell, and that it is found in other localities besides that of the conjunctiva. Probably the symptoms of the disease are traceable to this epithelial mycosis. Dr. Heyl gave adduced reasons for considering the epithelial cells as the receptive organ of centripetal nerves. In the treatment, the careful administration of food is important, and as the application of moist heat to the eye has been found very serviceable, possibly it would also be if applied to the surface of the skin.

ALARMING AND DANGEROUS DOSES OF THE MYDRIATICS

was the title of a paper by DR. EDWARD JACKSON, of West Chester, who said that it is important to understand the limits which are imposed upon the dose of atropia and other mydriatic alkaloids by danger of fatal poisoning. This paper has been prepared to remind practitioners that these limits are not really so narrow as many seem to think.

The paper contained quotations and abstracts of such cases as bore directly on the subject under discus-

sion, among them twelve in which the amount of atropia taken was known to exceed one-half grain, yet the patients recovered. Allusion was also made to the report of Dr. Fuller, of London, on the extreme tolerance of belladonna shown in choreic children, one taking as much as seventy grains of the officinal extract daily, and another taking thirty-seven grains of atropia in eighteen days. In the case of acute mania reported by Dr. Sydney Ringer, one-grain doses of the crystallized alkaloids, atropia, daturia, and hyoscyamia, were repeatedly given with benefit to the patient.

Dr. Carl Seiler read a paper on

AN ELECTRIC LARYNGOSCOPE,

in which he described an apparatus for the illumination of the laryngeal, nasal, and other cavities of the body by means of an electric incandescent lamp.

DOES A CHRONIC DISCHARGE FROM THE EAR MAKE LIFE INSURANCE HAZARDOUS?

Dr. Charles S. Turnbull, of Philadelphia, called attention to a point of vital interest to Life Insurance Companies and their medical officers. He described the too frequently hazardous condition of those making application for life insurance, holding that some of these, while passing a first-class physical examination, may at the same time be suffering from fatal discharge from the ear. He maintained that, whatsoever the plan may be, whether mutual, life, or endowment, the risk incurred and the liabilities assumed by Life Insurance Companies, through their medical examiners, is in no small way compromised by the existence of a chronic ear disease of the applicant. Deaf persons are not insured by the leading companies, at least, not at ordinary rates, because of the self-evident fact of their being in imminent peril, hence such are not accepted, or are considered as "extra hazardous." An otorrhœa may exist and be entirely overlooked by experienced examiners; and this is, in his opinion, in many cases, a much greater source of danger to life than that arising from the mere physical defect of not hearing. Deafness of a dangerous or hazardous degree cannot be concealed, and is only an element of risk in so far as accident is concerned; while a chronic purulent inflammation of the middle ear, with, perhaps, some polypoid or necrotic complications can be intentionally or unintentionally concealed, or, on the other hand be overlooked, while it threatens life within a year. One remaining sound ear may do all the work, and the examiner, as well as intimate friends, may never suspect the defect. Total deafness, like total blindness of one side, may exist for years, even for a quarter of a century without even the afflicted individual being aware of the fact, and a purulent discharge continue from childhood without causing annoyance, or even a thought.

He suggested an ocular inspection of the ears, and at times, when of sufficient importance, the employment of an expert, because, in his experience, he has known of liabilities incurred where even a hasty examination of the ear would have saved the insurance companies thousands of dollars. The same may be said with reference to the organs of sight. He concluded by urging the profession to exercise more care in the treatment of the ear-symptoms and complications in the exanthemata, and likewise called especial attention to the importance of the insurance companies making the examination of the ears compulsory in every case.

As an easy and yet complete method of examination of the ears, he suggested the following, which places the examiner in a secure position, and makes him entirely independent of the statements of the examined, as well as of instruments of precision, or reflected light: 1, test each ear separately with the watch, the eyes being covered; 2, inspect, by good daylight, the auricular region, especially noting condition of mastoid or cicatrices thereabouts; 3, inspect (nasally, as do the gas-fitters) each auditory meatus, and, to sum up, what the impaired hearing does not suggest, cicatrices from loss of bone or fistulous orifices over temporal bone will point out, while the presence of pus or, what is more significant, of fetor, will settle the question. A purulent discharge from the ear should always raise a question with insurance companies, and its character and ultimate course as to the future health of an individual can only be settled by an acknowledged expert, *i.e.*, a man of experience must say whether it be curable or not.

Dr. John B. Roberts read the address in the Section of Surgery entitled

SURGICAL DELUSIONS,

referring to the dangers of chloroform as an anæsthetic compared with ether, the inutility of styptics in hemorrhage as compared with ligation and pressure; the advisability of trephining in cases of doubt as to brain injury; the delusion of delay in operating for strangulated hernia, acute phlegmonous inflammation, and malignant tumors; the mistaken ideas regarding the fatality of traumatic tetanus, of pericardial and cardiac wounds, of the symmetry of normal limbs, and of the uselessness of treating vicious union of fractures.

Dr. P. D. Keyser read a continuation of his paper entitled

OPHTHALMOLOGICAL OBSERVATIONS DURING TEN YEARS' SERVICE IN THE WILLS EYE HOSPITAL.

He described a cystotome of his design for rupturing and drawing up of the anterior capsule, for the removal of a piece of it in the operation for extraction of cataract. He gave his modification of Pagenstecher's operation for the removal of pterygium; and also the history of an interesting case of complete paralysis of the sixth pair of nerves from injury to the head, causing extreme double convergent strabismus, which was relieved by operation of shortening and bringing forward the external recti muscles.

Four cases of glioma of the retina were narrated, two of which were operated upon by enucleation, and the macroscopic and microscopic account of the balls given.

OFFICERS ELECT.

The Nominating Committee reported as follows: *President*—E. P. Allen, Bradford; *Vice-Presidents*—Jacob Price, Chester; D. M. Bland, Columbia; S. Brandis, S. R. Rutledge, Indiana; *Permanent Secretary*—William B. Atkinson, Philadelphia; *Recording Secretary*—A. T. Cornell, Lackawanna; *Corresponding Secretary*—John G. Lee, Philadelphia; *Treasurer*—Benjamin Lee, Philadelphia; *Committee on Publication*—John B. Roberts, Henry Leffman, E. Jackson; *Judicial Council*—Traill Green, Northampton; J. A. Ellier, Lackawanna.

Next meeting will be held on the second Wednesday of May, 1885, at Scranton, Lackawanna County, Pa.

Chairman of Committee of Arrangements, J. F. Everhart.

Dr. J. William White, of Philadelphia, followed with a paper by himself and Dr. Edward T. Bruen, of Philadelphia, on

THE OPERATIVE TREATMENT OF PURULENT PLEURAL EFFUSIONS,

defining the causes, diagnostic features, indications of treatment, and recent operative methods, and giving a summary of thirteen cases. He said, regarding the method of treatment, that pleural effusions should be thrown off by the insertion of a tube. If the patient was over ten years of age the walls of the chest would be similar in formation to those of an adult, and the insertion of a tube would then be unnecessary. It was important to drain the suppurating region. If the drainage tube was of no avail, as was sometimes the case, the resection of the ribs could be resorted to. This could

not be done except in cases where the diseased lung fell somewhat from its normal position in the pleural cavity.

Dr. C. B. Nancrede, of this city, read a paper on the bichloride of mercury as a surgical dressing.

DENOUNCING UNPROFESSIONAL ADVERTISING.

A sensation was caused just before the close of the morning session by the following report and resolution from the committee appointed to consider the report of the Committee on Publication. "All the papers read or appointed to be read before this Society become thereby the exclusive property of the Society, and the author has no right to publish or cause to be published the paper or any part of the same without the consent of this Society. The Committee on Publication shall not be at liberty to publish any paper that has been published in violation of the above requirement.

"*Resolved*, That the Medical Society of the State of Pennsylvania look with great disfavor upon the making use of this organization as an advertising medium, and hold such practice as contemptible, as a flagrant violation of the spirit of the Code of Medical Ethics."

The report was strenuously opposed by Dr. John B. Roberts, of this city. He said that if it was adopted it would prevent the writing of good reports. His duty compelled him to sit on the platform during the session of the Society, and he was forced to say that half the papers that were read were very poor. They would not have been accepted by the editors of the reputable medical journals throughout the country, and yet the members of the Society were compelled to listen to them. The authors did not prepare the papers with the greatest possible care, because they probably thought that they would not be published.

Dr. E. A. Wood, of Allegheny County, said there was no disposition on the part of the Society to interfere with the press. The idea was to let the newspapers do as they pleased, but that the papers were the property of the Society.

After further discussion the resolution was laid on the table.

CHRONIC ARTICULAR OSTEITIS OF THE KNEE-JOINT.

Dr. A. Sydney Roberts, of Philadelphia, read a paper on this subject, in which he said that he had chosen the chronic articular osteitis as the one best expressing the pathological condition found in those lesions of epiphysis of the knee-joint, that have usually been described by the older writers under the caption "Tumor Albus;" his reason for so doing has been by proper classification to refer directly to inflammation of the cancellous structure of bone, thereby avoiding the confusion that usually exists if the more general terms, arthritis, or knee-joint disease be employed, before considering the main feature of the paper, viz., to bring before the Society a new mechanical splint, designed for the treatment of chronic articular osteitis of the knee-joint. Dr. Roberts hastily reviewed the etiology and pathology of the affection. To meet the universally recognized principles of treatment, *i.e.*, fixation of the joint and extension, he has designed the splint that he most feels justified, from the success that has attended its use, in presenting to the profession. It consists of two light steel padded troughs that are firmly secured to the limb by encircling bands of surgical netting, affording absolute fixation to the joint when the extending rods are locked after adjustment. Three ratchet extension bars, arranged in the form of a triangle, are placed posteriorly, corresponding to the long axis of the limb, placing within the control of the surgeon a power that will overcome the flexion and the tendency to the production of deformity, and at the same time produce extension. The extension rod acts directly upon the head of the tibia and parallel with the line of contraction of the flexor group of muscles, obviating thereby the error in the mechanical arrangement of the popular splint, or in all where the power is applied on the tibia to overcome the flexion.

In the evening the Society was entertained by Drs. P. D. Keyser and John B. Roberts.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, May 15, 1884.

Horace T. Hanks, M.D., Vice-President, in the Chair.

PRACTICAL SUGGESTIONS ON THE ALIMENTATION OF PATIENTS SUFFERING FROM DYSPHAGIA.

Dr. D. Bryson Delavan read a paper on the above subject, in which he first directed attention to the immediate relation between dysphagia and the general well-being of the patient, and then to the urgent necessity which always existed for its relief. The object of the paper was to recall the morbid conditions with which dysphagia might be associated, also to refer to its influence upon these conditions, to discuss some of the methods not heretofore very much used, and urge their employment. The author of the paper then enumerated the indications to be met, and mentioned the following diseases which might give rise to the indications, namely, tuberculosis, cancer, syphilis, acute tonsillitis, parotiditis, retro-pharyngeal abscess, surgical conditions and operations upon and injuries of the soft palate, uvula, pharynx, and larynx. The injuries to these parts might be due to the action of mechanical or chemical agents.

The indications to be met were, first, securing rest, and avoiding all causes which excite pain; second, protection of the parts from mechanical injury; third, maintenance of nutrition. The main proposition was to abolish the act of deglutition, and, in all cases where the stomach is good, the indication was to either remove the obstacle to deglutition or overcome it. The basis of the method consisted in the use of the stomach-tube, and according to the following principles: First, the employment of a tube of the smallest possible calibre; and, second, the introduction of the tube, not into the stomach, but merely into the œsophagus, beyond the point of obstruction, or the pharyngeal constrictors. When used in this way pain and injury of the parts is avoided, and nutrition is easily maintained.

Dr. Delavan then exhibited a simple apparatus which he had devised for accomplishing this purpose. It consisted of a soda-water bottle with a *conical* bottom, which diminished the probability of air getting into the tube during its use. Into it was introduced a small india-rubber stopper perforated with two holes. Into one of the holes was inserted a glass tube to which could be attached the bulb of a Davidson syringe; into the other hole was inserted a glass tube to which could be attached an india-rubber tube, which was connected with the tube to be introduced into the œsophagus. That which he ordinarily employed was the catheter, instead of the ordinary œsophageal tube; from No. 9 to 18, English scale, was a convenient size. After carefully introducing the tube into the œsophagus, guiding the point with the finger to prevent it from entering the larynx, the plan was to allow first about half an ounce of the fluid to enter the œsophagus at once, and then wait for a few moments. If more than that quantity was introduced it was apt to provoke fits of coughing. The size of the tube should be regulated according to the age of the patient and the kind of fluid used, and instead of using the catheter with an opening in the side, one with an opening in the end was preferable. As a general rule the irritation caused by the catheter was increased in proportion to the size of the instrument. In many cases the patient could be taught to use the tube, and could do so better than any one else. If the pharynx proves to be too irritable to the presence of the tube it may be introduced through the nostril.

Dr. Delavan then referred to the class of cases to which the method which he proposed was especially applicable. Tubercular laryngitis, which in many cases exists for a long time before the lungs are in such a condition as to place the life of the patient in immediate jeopardy; cancer, syphilis, diphtheria, all acute inflammatory affections of the tonsils, parotiditis, retro-pharyngeal abscess, functional derangements of the larynx, spasm of the pharyngeal constrictors, faucial paralysis, whether from cerebral hemorrhage, embolism, or diphtheria, and certain surgical diseases and conditions. He urged a fair trial of the method in cases in which it can be properly employed.

Dr. J. C. Peters thought that alimentation and stimulation in acute throat diseases was not as important immediately as had generally been considered.

Dr. E. C. Harwood had heretofore succeeded in sustaining nutrition by the use of the stomach-tube introduced in the ordinary way, or by the use of a tube introduced through the nasal passages, and had found the means a most important adjuvant in the treatment of certain cases. He could commend the apparatus exhibited by Dr. Delevan, although he had not had an opportunity to use it.

Dr. R. C. Brandeis thought that but few patients could be trusted with the introduction of the catheter in cases of dysphagia, and that the plan of treatment suggested by Dr. Delavan, while it might probably prove effectual, would give rise to the necessity of making so many visits as to render it impracticable. He then referred to a plan of treatment introduced by Krishaber —namely, the introduction of the tube through the nose, and allowing it to remain for days in succession. Krishaber had reported one case in which the tube had remained in position one hundred and fifteen consecutive days without any special inconvenience. Dr. Brandeis had had a case in which the tube had been in position one month. The patient came at regular intervals, had it removed, cleaned, took a rest for an hour or two, and then the instrument was re-introduced, and through it the requisite amount of fluid food could be passed without any inconvenience. The tube was the black rubber tube, about eight or nine millimeters in diameter. In acute affections of the throat he had not met with any difficulty in feeding his patients. In severe cases of acute tonsillitis with marked dysphagia, he had relieved this symptom by means of scarification.

Dr. George L. Peabody suggested a method of feeding in dysphagia; namely, to take the ordinary condom, cut off the end, allow the patient to swallow it as much as he can, and then through this fluid can be forced in such quantities as might be desirable without serious inconvenience to the patient.

Dr. W. C. Jarvis thought that Dr. Delavan's apparatus fulfilled all the indications in cases in which it was possible to employ this method of alimentation. But there was one method which he thought was original with himself, and perhaps was worthy of mention. There were some cases in which it was impossible to use any kind of a tube, however small—for example, certain cases of tubercular laryngitis. For these cases he had used with considerable success the elastic gelatine capsules, such as used by Parke, Davis & Co. for administering castor oil, etc. These capsules can be filled with fluid of any kind by means of a hypodermic syringe, the little opening sealed, and they are so easily swallowed that nutrition can be sustained in this way without pain accompanying efforts at deglutition. With reference to acute tonsillitis becoming so severe as to threaten the necessity of tracheotomy, as had been suggested by Dr. Harwood, he thought that excision of a portion of the tonsil should be resorted to rather than tracheotomy, as it could be done without any danger whatever.

Dr. Harwood remarked that in that class of cases he fully agreed with Dr. Jarvis concerning the propriety of excising the tonsil rather than performing tracheotomy.

Dr. Delavan, in closing the discussion, said that he would not, of course, advocate the use of the tube by the patient unless the patient possessed sufficient intelligence to introduce it without doing himself damage, and he thought that not infrequently an intelligent patient could introduce it more successfully and comfortably than could be done by the physician. Krishaber's method was certainly ingenious and useful, but he thought it would be found unnecessary except in extreme cases; for example, of cancer, in which the introduction of the tube might be very difficult. But if the œsophagus is patent he did not see the propriety of leaving the œsophageal tube in position. Doubtless there were cases in which it was impossible to use any tube, and, in that event, he thought the method suggested by Dr. Jarvis would be an admirable one.

CHANCRE OF THE TONSIL.

Dr. R. W. Taylor then read a paper on chancre of the tonsil, by which he meant the initial lesion of syphilis. He thought that this form of chancre was not so rare as was once supposed, and that it possessed considerable interest. In the first place it might originate from contagion, and it was also frequently caused by unnatural sexual contact. Dr. Taylor then related the history of several cases in which all other sources of infection had been eliminated. One of them he saw by invitation of Dr. McBurney, in 1882; another came under his own observation in 1882; and two other cases subsequently; also a case had been reported to him by Dr. Wigglesworth, of Boston, and still another case had been related to him by his late colleague, Dr. Bumstead. The author of the paper then gave the history of cases which had been reported in foreign literature, and afterward described the peculiarities of the chancre as it appears upon the tonsil. It is first noticed that the tonsil is red and swollen, without perceptible induration, to be followed by an indurated point at which ulceration occurs, to be covered with a whitish exudation. The prominence of the tonsil will depend upon its previous condition; that is, if hypertrophied it will be more prominent than if the initial lesion occurs upon the nearly normal tonsil.

Dr. Taylor then gave the points in differential diagnosis between chancre of the tonsil, mucous patches, and syphilitic sclerosis. The diagnosis would be based, first, upon the details and the mode of infection; second, the slow unilateral development of the chancre with corresponding glandular enlargement; third, limitation of the lesion to the affected side; fourth, difficulty in deglutition; fifth, enlargement of the preauricular glands; sixth, the history of the evolution of syphilis, and the absence of the initial lesion of syphilis from other parts of the body.

Dr. F. N. Otis had never seen a case of chancre of the tonsil, but saw no reason why the lesion could not occur there as well as elsewhere. All that is necessary to acquire syphilis is contagium and an open surface, and no matter where it is, the course of the lesion will be almost the same, excepting some difference due perhaps to the locality in which it is situated.

That there is any certainty that a sore which does not present the characteristics mentioned by Dr. Taylor is not syphilitic he did not believe; for, he believed that the initial lesion of syphilis had the greatest possible variety of appearance and condition. The initial lesion of syphilis is not necessarily associated with any destruction of tissue whatever. A little hard nodule may appear, and from this syphilis may enter the system; the little nodule or knot becomes absorbed, and there has been no ulceration whatever. He thought we should always bear in mind that if we wait for the appearance of these conditions which Dr. Taylor had described, much precious time might be lost.

Dr. F. R. Sturgis had seen four cases; three, besides one of those which had been reported by the reader of the paper. In nearly all the cases which he had

seen the inflammatory attack had been pretty well pronounced. The infiltration of the tonsil had been well marked, throwing the tonsil well out into the cavity of the throat, making deglutition, and sometimes respiration, difficult and painful. In one of the cases the tonsil was not nearly so much indurated as in the other, and the ulceration was superficial, so much so as to render the diagnosis quite difficult. Dr. Sturgis regarded the condition of the glands as important, especially the preauricular, as, in the cases which he had seen, they had always been enlarged by induration and not inflammatory infiltration. He thought that chancre of the tonsil was not a common affection. The point of differential diagnosis was chiefly between the initial lesion and gummatous infiltration of the tonsil, between which, when the gummatous infiltration has begun to break down, there is a very great similarity. But the main point of differential diagnosis was with regard to the condition of the glands, which in the late lesion of syphilis are, so far as he had seen, never indurated.

Dr. L. D. Bulkley thought that an important part of the subject was the fact that the paper had brought to the attention of the profession another place in the body through which the poison of syphilis can effect an entrance. Years ago it was supposed that syphilis was exclusively a venereal disease, and that the poison was obtained by carnal contact. It is well known at the present time, however, that syphilis occurs very frequently from inoculation during operations, from innocent exposure of the lips to the poison by kissing, and other methods equally consistent with the good character of the person afflicted.

He had seen four cases, and in one the secondary and late manifestations of syphilis were exceedingly severe. Dr. Bulkley then recited briefly the history of one case, and closed by saying that the paper would teach us to look for the entrance of syphilis where we would not have thought of looking for the disease twenty years ago.

Dr. W. C. Jarvis thought that the steady flow of saliva with the secretions from the mucous membrane of the mouth gave rise to a condition which was very unfavorable for infection from syphilis, and that from this cause it was very seldom that syphilis was seen within the buccal cavity, because the virus was swept beyond the point and carried into the stomach. He then referred to the occurrence of mucous patches upon hypertrophied tonsils which resulted in a kind of fibrous change that gave rise to a condition that was exceedingly important in connection with excision; for, if such tonsils were excised there was a very great liability to the occurrence of severe hemorrhage; but they could be removed by means of the wire snare without danger.

Dr. Taylor, in closing the discussion, said that there was no variation in the appearance of chancre as seen in mucous membrane or the skin; that chancre of the tonsil did occur was an established fact; that the necessity for the mere recognition of the lesion was not so very great, because not much harm would come from failure to recognize it, as it was not until the appearance of secondary symptoms that the specific treatment for the cure of syphilis was necessary. With regard to the intensity of the suffering of these patients, in some of his cases it had been very severe. With regard to gummatous infiltration of the tonsils, it was well recognized that it offered one of the difficulties in differential diagnosis; but the cardinal point in diagnosis, namely, glandular enlargement, would help to solve the case, especially when taken in connection with the history. Dr. Bulkley's case was one indeed of great interest. As to washing out the mouth with saliva to prevent infection of syphilis from finding a lodging-place, that was all very well, but here were four cases of undoubted chancre of the tonsil, which he regarded as sufficient evidence that the lesion might exist.

The Academy then adjourned.

SECTION IN OBSTETRICS AND DISEASES OF WOMEN AND CHILDREN.

Stated Meeting, April 24, 1884.

Alexander S. Hunter, M.D., Chairman.

MEDICINAL TREATMENT OF PSEUDO-MEMBRANOUS CROUP.

Dr. A. Jacobi read a paper on the above subject. (See page 573.)

Dr. W. E. Forest spoke of the surprisingly large number of patients which he had seen recover while taking the bichloride in doses of $\frac{1}{60}$ of a grain.

Dr. J. C. Peters believed that diphtheria is a local disease, and therefore had been in the habit of administering whatever remedy he used dry upon the tongue. He had employed the bichloride of mercury, tannic, and gallic acid, chlorate of potassa, and pepsin in this way and with good results. He also spoke favorably of the use of turpentine, and finally of a remedy to which his attention had been called recently, namely, what is called in Jamaica divy-divy. It was a simple bitter astringent, so far as appeared, probably contains some tannin, and had been used, as described to him, in infusion with hot vinegar, applied locally, rubbing the membrane off from the tonsils and throat by means of the finger covered with a rag wet with the fluid, and also as a gargle and by syringing the throat.

Dr. J. Lewis Smith doubted the propriety of administering mercurials internally for the purpose of destroying germs in the tissues, as, probably, whatever would so destroy the micro-organisms would produce a destructive effect upon the cells of the tissues and the general economy. He again spoke of the favorable effects to be expected from the use of alkaline inhalations, especially as alkalies dissolve mucin and fibrin. He thought the Academy should, as a body, protest against the local use of caustics. The germicide which he favored was alcohol. Dr. Thallon's cases, alluded to by Dr. Jacobi, and published in the *New York Medical Journal*, failed to convince him with regard to the special value of the mercurial treatment, although from what he had read and heard this evening, he should give the remedy a trial.

Dr. Daniel Brown referred to a point bearing on the indications for tracheotomy, namely, the fact that in very many cases, seven of which he had seen, the patients suffered the agonies of suffocation; the tube was introduced, they revived, and then passed through the terrible distress of a second suffocation before death occurred.

Dr. Jacobi said he had seen not only seven, but more than fifty patients die in the manner mentioned by Dr. Brown. But at the same time the fact should not deter us from performing the operation, for there were as many, if not more, to whom it gave permanent relief until death occurred, and in a percentage of cases the patients recovered from this extreme condition, and through the instrumentality of tracheotomy.

He thought, in speaking of the mercurial treatment, comparison should not be made between calomel and corrosive sublimate. Twenty grains of calomel administered to a child was dangerous, and was not an indifferent affair. From one-half to one grain of the bichloride of mercury daily, well diluted, was not a large quantity. It was true, as Dr. Smith had mentioned, that cells were destroyed by germicides; that is, it was true of carbolic acid, etc., but it was not true of the bichloride of mercury, which entered the blood unchanged and mingled with it *without* changing the blood-corpuscles. Moreover, nearly all observers believed at the present time that diphtheria was not produced by micrococci, so the remedy need not be given with the view in mind of destroying the micro-organism. The remedy was used for its anti-fermentative properties, and it should be administered in sufficient doses to affect the entire bulk of blood quickly, which could be accomplished by the use of doses of $\frac{1}{60}$ of a grain, well diluted, every hour, for a

nild under one year of age, and without producing eleterious effects on the blood-cells.

The Section then adjourned to meet on the *fourth Thursday* in October.

THE THIRTEENTH CONGRESS OF THE GERMAN SURGICAL SOCIETY.

Held in Berlin, April 16, 17, 18, and 19, 1884.

PROFESSOR v. LANGENBECK, PRESIDENT, IN THE CHAIR.

(Special Report for THE MEDICAL RECORD.)

THE attendance at the opening session of the Congress as large, numbers of German surgeons not only from ie Fatherland, but also from the neighboring countries Europe being present. The former President, DR. ON LANGENBECK, was re-elected by acclamation, and DR. OLKMANN was chosen as Vice-President.

The Association voted to admit a certain number of irgeons, not exceeding twelve, as honorary members. he candidates are to be presented by the Executive ommittee, a unanimous vote of the committee being re-uired for nomination, and shall then be voted upon by ie members of the Congress, a two-thirds vote of those resent being necessary to elect. The first election honorary members is to take place at the next session.

The scientific labors of the Congress were commenced DR. F. NEELSEN, of Rostock, the title of whose paper as

OW CAN WE RECONCILE OUR CLINICAL NOTIONS OF SEPSIS, SEPTICÆMIA, AND PYÆMIA WITH THE LATEST TEACHINGS OF PATHOLOGY?

The diseases arising from infection through open wounds re, except where their specific nature has already been etermined, as in the case of erysipelas, to be regarded as ie combined result of three processes—septic poisoning, cal inflammation, and the multiplication of bacteria in ie blood. The experiments of v. Bergmann, Panum, nd others, have shown that it is not to the micro-organisms themselves, but to the chemical changes caused by iem, that the symptoms of fever—vomiting, somnolence, nd diarrhœa—are to be referred. The typical septicæmia, ie to a combination of these three causes, may become odified by an extension of the inflammation to distant gions of the body through the lymph- and blood-channels. With the development of these metastatic abscesses e have a condition simulating very closely pyæmia. ut it is not pyæmia. For this latter is a disease *sui eneris*, like small-pox or glanders, and does not arise by fection through a wound. We may, nevertheless, see a ombination of septicæmia and pyæmia in the same dividual.

DR. KÜSTER, of Berlin, then presented a paper on

HE USE OF SUNKEN SUTURES, ESPECIALLY IN PLASTIC OPERATIONS.

The author pointed out the disadvantages of the ordinary method of approximating the edges of large ounds by sutures passing through both the integument nd deeper tissues. It afforded little or no protection gainst the accumulation of secretions at the bottom of e wound, and furthermore was often injurious by reason interference with the circulation in the constricted tisues. These evil results were obviated by the method, escribed by Werth in 1879, of inserting a row of catgut tures along the sides of the wound from below upward. n this way the surfaces are approximated along their hole extent, the necessity of drainage-tubes is in many ases done away with, there is practically no constriction the tissues, and the chances of union by first intention re greatly bettered.

DR. KÖNIG, of Göttingen, followed with an argument on the question:

IS THE DANGER OF GENERAL INFECTION AN INDICATION FOR THE RESECTION OF TUBERCULOUS JOINTS?

He did not regard resection as being protective against general tuberculosis, since we could never be certain that there were no other foci of disease in other parts. Sometimes the disturbance of the parts in an operation seemed to scatter the bacilli, and so actually to provoke a general infection, which might never have occurred had the local process not been interfered with. The number of such cases, however, seemed to have decreased since the general use of iodoform after operations.

DR. CRAMER, of Wiesbaden, related a case of

BLOOD-POISONING CAUSED BY THE PRESENCE OF A SANGUINEOUS CYST.

The symptoms of poisoning ceased immediately upon the removal of the cyst, and were due, the speaker thought, to the continuous giving forth of fibrin ferment from the coagulated blood within the cyst.

A paper by DR. J. WOLFF, of Berlin, upon

THE LAW OF OSSEOUS TRANSFORMATION

was next read, in which the author sought to prove that when pathological changes occurred in the outer layers of bony tissue, certain compensatory transformations took place in the cancellous layers. His views were opposed by a number of his hearers and a somewhat heated discussion ensued.

A case of

EXTRACTION AND REPOSITION OF AN INCISOR TOOTH

was related by DR. A. BIDDER, of Berlin, in which he had replaced a tooth loosened by an alveolar abscess. It remained firm for three years and then fell out, when it was found that the root had almost entirely disappeared.

DR. WAGNER, of Königshütte, then followed with an interesting paper on

DISLOCATIONS OF THE CERVICAL VERTEBRÆ.

He related a number of cases that had been observed by him in the past few years which differed in several respects from the cases hitherto reported. The first was that of a man who fell from a railroad car, striking the nape of the neck against the buffer. There was complete paralysis of the legs while the arms were only partially affected. The head was strongly extended and the cervical muscles spasmodically contracted. Nothing abnormal could be discovered on palpation of the vertebral processes. Even after death no displacement could be found until the muscles had been dissected away. It was then seen that an anterior dislocation of the sixth cervical vertebra with rupture of the intervertebral cartilage had occurred. The second case was that of a young girl. The head was extended to such a degree that the face was turned almost directly upward. The autopsy revealed posterior dislocation of the sixth cervical vertebra. In another case with a similar position of the head recovery ensued. The next was a typical case of left rotary dislocation caused by a blow on the back of the head. Reduction was effected by the method described by Richet and Hueter. Another patient was totally paralyzed and presented the symptoms of a very severe injury of the cord. The head was flexed toward the right shoulder and rotated in the same direction. The diagnosis was made of left rotary luxation of the fifth vertebra. Reduction was effected by rotating the head first to the right side, flexing it at the same time to the left, and then turning it in the opposite direction. An improvement in the paralysis was noticeable the following day, though the patient never has recovered entirely. The last case was that of a boy who fell from a chair, striking on his head. When seen, two weeks later, the head was inclined to the left side and the muscles on this side were in a state of spasmodic contracture. Ex-

amination showed a deviation of the spinous process of the fifth vertebra to the left, while the body of the same vertebra could be felt projecting in the pharynx and turned to the right. By strong flexion to the left, rotation to the right, and traction Dr. Wagner succeeded, after three attempts, in effecting a reduction.

In concluding, the author said that in forward dislocations no attempts at reduction should be made unless the diagnosis could be established with certainty. This was not always easy, even to the most skilled diagnostician, since the position of the head in these cases was so variable. In rotary luxations it is of therapeutical import to determine whether the processus obliquus is impacted or not, as in the latter case traction and rotation alone are required, while in the event of impaction further manipulations are required in order to free the engaged process.

Dr. Schede, of Hamburg, had seen two cases where rotary luxation was produced by very slight causes. In one it was caused by the energetic efforts of a man to wash the back of his neck; in the other the luxation followed a fall from a horizontal bar. In both cases reposition was effected without difficulty.

Dr. Czerny, of Heidelberg, asked whether, in such cases, any very great efforts at reduction should be made, and whether there were any special symptoms to be relied upon in the differential diagnosis between contusion and compression of the cord. He himself had the impression that in simple compression the reflexes were longer preserved, while in contusion they were ordinarily abolished. When there is evident injury of the cord, the efforts at reduction would be of little avail and might even be productive of harm.

Dr. Wagner relied also on the reflex phenomena, but thought that even with these evidences of a wounding of the cord greater efforts at reposition should be made than had hitherto been the rule. This was now the practice of American surgeons. In certain cases he had seen great improvement follow upon traction made after the head had been restored to its normal position.

Dr. Volkmann, of Halle, stated that he always made attempts to reduce the dislocation when the paralysis was not complete or when a certain asymmetry in the symptoms indicated only a partial contusion of the cord.

Dr. Küster, of Berlin, related a case of

FRACTURE OF THE AXIS WITH COMPRESSION OF THE CORD.

The patient was a girl, eighteen years of age, whose mistress one day seized her by the hair and knocked her head several times against a post. After this had happened the girl was seen by several persons walking in the street, but in the evening she complained of pain in the neck, and retired early to bed. The next day, on attempting to rise, she fell over and struck her head against the commode. She was found in convulsions and unconscious. After removal to her own home she was seen by several physicians, who agreed that she had an injury of the spinal column in the cervical region, but were unable to determine the exact nature of the injury. She remained in this condition without any noticeable change for six months, suffering from paralysis, with difficulty in speaking, and every now and then having convulsions. At the end of this time the patient, was found lying motionless in bed, but when urged could move the leg very slightly. The intelligence was unaffected, she gave correct answers to questions, but articulated with difficulty. Examination of the neck showed a slight prominence of the spinous process of the second cervical vertebra. The nervous symptoms pointed to a myelitis from compression, which did not however involve the entire thickness of the cord. Accordingly it was determined to try the effect of traction upon the head, and the result was most gratifying. Within five weeks the patient was able to move the extremities and even to write, while a marked improvement was noticeable in the speech. A leather cravat was now applied and the patient allowed to go about. The speaker had recently heard from the patient, six months after her discharge, and she was able to dispense entirely with the support.

Dr. Wagner was forcibly reminded of a case seen by him in which a girl, who had been struck on the nucha with a stick, was confined for months to the bed and suffered from partial paralysis and complete aphasia. The diagnosis of hysteria was made and was confirmed by subsequent events.

Dr. Küster said that he had thought of the possibility of hysteria in his case, but that this idea was rejected by Dr. Wernicke after a careful examination. Furthermore, the improvement, though so striking, had been gradual and resembled in no way recovery from hysteria.

A second paper was read by Dr. Küster, describing

A NEW AMPUTATION OF THE FOOT.

The operation was necessitated by traumatic gangrene involving the metatarsus on the outer side of the foot. It was found possible to save the first metatarsal bone, and the result was a very useful foot. The patient could not only walk but could even skate and dance.

TUMOR OF THE KIDNEY FROM A DISPLACED SUPRA-RENAL CAPSULE.

Dr. Grawitz, of Berlin, read an article with the above title in which he stated his belief that the nodular tumors of the kidney were composed of the tissue of the supra-renal capsules. In support of this view he stated that: 1. In the kidney substance itself it was by no means uncommon to find little pieces of the supra-renal gland, the frequency of which occurrence would explain the frequency also of the little tumors under question. 2. These little islets of the supra-renal tissue correspond in their situation to the part in which the gland tumors are found. 3. The structure of the nodules is such that it is difficult to conceive of their having originated from the renal tissues. They differ wholly from the tumors arising from the uriniferous tubules. 4. Finally these growths correspond in structure with tumors of the supra-renal capsules themselves. Furthermore they exhibit a tendency to mucous degeneration and very frequently present little hemorrhagic spots in their centre, in which also they resemble the supra-renal tumors.

Dr. Crédé, Jr., of Dresden, presented a patient upon whom he had performed

EXTIRPATION OF A GOITRE

two years before with excellent result.

A SARCOMA OF THE SPLEEN

was exhibited by Dr. v. Hacker, of Vienna, which had been successfully removed by Professor Billroth, on March 20th. The patient had made a good recovery and had no swelling of the lymphatic glands nor pain in the bones, nor had he exhibited any signs of irritability.

Dr. Zabludowsky, of Berlin, related his experience with

MASSAGE,

and the results obtained by him in the physiological institute of Berlin in experiments made to determine its mode of action. He was followed by Dr. v. Lesser, of Leipzig, who made some remarks in condemnation of the materials now supplied to the German soldiers for the

PRIMARY DRESSINGS ON THE BATTLE-FIELD,

which he regarded as useless and even dangerous. And he described the contents of a package which he thought more suitable in emergencies of that kind. His remarks elicted some discussion by Drs. Roth, Starcke, and Esmarch.

In an article upon the presence of bacteria in

METASTATIC JOINT DISEASES,

Dr. Schüller, of Berlin, stated that almost invariably he had found micro-organisms in the articulations in meta-

atic inflammations. They were, however, of the greatt variety of form, even the pneumonic diplococci of riedländer being found. His conclusions were that it ould be incorrect to regard all so-called metastatic inammations of the joints as truly specific.

Dr. Albrecht, of Brussels, read a learned disquisition the morphological significance of

FISSURES OF THE MAXILLA, LIPS, AND FACE,

hich elicited a mild discussion.

Dr. Neuber, of Kiel, next read a paper on

RESECTIONS OF THE HIP AND KNEE,

which he demonstrated the method followed in the inic at Kiel. The incision through the soft parts is cared down around the trochanter major, the tip of which sawn off. Then after the operation on the joint is ompleted the flap is returned and the attached trochanr is fastened in its former place by pegs. The soft rts are then approximated by sutures, and the limb t up in plaster-of-Paris, in a position of abduction. the knee, flexion after the operation is prevented by taching the patella by means of pegs to the opposing ds of the femur and tibia, thus making a sort of bony asp.

Dr. Schede did not regard Neuber's method of exction of the hip with any favor, as he thought little was be expected from it in the way of functional utility.

Dr. Volkmann regarded anchylosis in abduction as desirable, and thought that the attainment of joint otion was what should be aimed at.

Dr. König agreed fully with the last speaker as rds the hip-joint. He thought it very unlikely that xion of the knee would be prevented by the method oposed.

Others who took part in the discussion agreed in the ain with the first speakers that this mode of resection as no improvement on the older methods.

Dr. Bruns, of Tübingen, made a report upon his ter experiences with

WOOD, WOOL, AND SUBLIMATE DRESSINGS.

They were of a very satisfying character. The marial was cheap, and the results obtained were better an in the unmodified Lister dressing.

This was followed by a paper by Dr. Mikulicz, of racow, upon

SOME MODIFICATIONS IN ANTISEPTIC TREATMENT,

which the author showed by the good results obtained him, when operating under the most unfavorable cirmstances, that the spray was superfluous.

Dr. Partsch, of Breslau, then read an article on the

RESULTS OF OGSTON'S OPERATION,

which he said that from his own experience of twentyree cases he was convinced that the unfavorable judgent passed upon this procedure was unjust. The iginal operation was performed, the only modification ing a sprinkling of the saw with cool carbolized water prevent overheating. He exhibited four patients upon om he had operated.

Dr. Volkmann did not deny that the results obtained Dr. Partsch were excellent, yet he could not approve the operation. Even were a hundred favorable cases occur in succession it would in no way prove that ere were not better and safer methods of cure for nock-knee.

Dr. Mikulicz regarded any discussion of Ogston's peration as useless, since the superiority of other methds, in which the joint was not opened, needed no emonstration.

A report was then made by Dr. E. Hahn, of Berlin, upon five cases of

EXTIRPATION OF THE LARYNX

in carcinoma. Two of the patients died of pneumonia, the others were exhibited to the Congress. The author stated that some discredit was thrown upon this operation at the International Congress in London, because of alleged disturbance to nutrition, but his cases had not suffered in this respect. The patients were able to drink with ease by using a slightly modified Gussenbauer's canula. One had gained thirty pounds in weight since the operation. His method of operating was as follows: an incision was first made on a level with the hyoid bone toward the diseased side, and from this another incision was carried along the median line down to the cricoid cartilage. Then the soft parts were dissected away on either side, and after the ligature of any bleeding vessels, the thyroid was divided and an inspection made to determine the extent of the disease. If the unilateral operation was deemed sufficient, it was performed by dissecting away the thyroid cartilage and removing it with a portion of the cricoid and arytenoid. In total extirpation, after dividing the cricoid cartilage, the author first tamponed the cavity with bismuth, then dissected off the soft parts and removed the cricoid, proceeding from below upward. The œsophagus and the hyothyroid membrane were then stitched together.

Dr. Schede presented a patient upon whom he had performed unilateral extirpation with very gratifying result. He said that the statistics of the earlier cases of extirpation of the larynx for carcinoma would seem to show that it was an unjustifiable procedure, but the successful termination in the more recent cases showed that this judgment should be reversed, and he hoped that the results in the future would be such as to give to this operation a recognized standing. He did not believe that the danger of relapse was any greater after a partial operation than after total extirpation, while the restoration of function obtained in the former procedure should always give it the preference when possible.

Dr. Küster also exhibited a patient upon whom the unilateral operation had been performed, and agreed with the last speaker in giving this operation the preference in suitable cases over a removal of the entire larynx.

The remaining hours of the session were occupied with the presentation of pathological specimens and the narration of interesting cases.

The President closed the proceedings by congratulating the members upon the success of the Thirteenth Congress, a success which showed that surgery in Germany was by no means quiescent, but was making constant advances and would continue to progress in the time to come.

Incised Wound of Sclera, Cornea, Iris, and Capsule; Recovery.—Dr. M. J. Davis, of Springfield, Mass., sends us the history of a young man, eighteen years of age, who severely wounded his right eye with the sharp edge of a chisel. The corner of the chisel penetrated the sclera at about three millimetres from the outer margin of the cornea, while a portion of its edge made an incised wound of the cornea, extending across the entire width and terminating in the sclera about two millimetres from the inner margin of the cornea, being driven in through the anterior chamber, dividing the iris horizontally, with prolapse of the iris, opening into the pupil, passing in through the posterior chamber, making a free wound of the capsule, and penetrating the lens, with slight loss of vitreous. Dr. Davis carefully replaced the iris, a drop or two of a four-grain solution of atropine was instilled into the eye, cold applications and a bandage were applied. The patient recovered with absorbed lens and distorted pupil, but with fair vision.

THE THIRD GERMAN CONGRESS FOR INTERNAL MEDICINE.

Held at Berlin, April 21, 22, and 23, 1884.

HERR VON FRERICHS, PRESIDENT, IN THE CHAIR.

(Special Report for THE MEDICAL RECORD.)

THE first session was opened by PROFESSOR VON FRERICHS, who welcomed the members and pointed out briefly the various subjects which would engage their attention at the coming meetings.

The scientific work was opened by PROFESSOR JÜRGENSEN, of Tübingen, who read an elaborate paper upon

TRUE PNEUMONIA: ITS ETIOLOGY, PATHOLOGY, CLINICAL COURSE, AND THERAPY.

The author gave a history of the growth of our knowledge of croupous pneumonia, and showed how opinions as to its nature had changed, until now the belief exists that pneumonia is a general infectious disease, the lung inflammation being only symptomatic. Experimental pathology had recently given indirect confirmation of this view.

The speaker then took up the alleged exciting causes of the disease, and showed that the facts regarding these did not conflict with the infection theory. Cold has been alleged to be a cause. At one time it was even said: "Frigus unica pneumoniæ causa." Different authorities reported cold to be a cause in between two per cent. and twenty per cent. of the cases. Jürgensen had in ten years' observation found cold as a cause apparently in ten per cent., really in only 4.1 per cent. It might easily be thought that exposure will produce a catarrh rendering easy the access of the infectious organisms of pneumonia.

It is a prevalent error, says Jürgensen, that pneumonia attacks by preference the strong and full-blooded. Among a population of all ages three-fifths of the pneumonias occur in those between one and fourteen years, while twice as many occur after forty-five as between twenty and forty-four. Dittel found that the disease occurred in those previously weakened, in eighteen per cent. of cases; Flint, of Dänemark, in twenty-one per cent.; the author in 29.3 per cent. Immermann, of Basel, recently confirmed this view. The disease has some relation to the meteorological conditions, being increased when there is increased humidity of the soil (Keller) and when the atmospheric precipitates are above the mean. These facts might be explained by the theory of an organic poison. Pneumonia is

A DISEASE OF DWELLING-HOUSES,

like typhoid. Jürgensen had seen pneumonia in a dwelling in Amberg. Some time later the pneumonia cocci were found in the walls of the chamber. The disease occurred in epidemics, especially affecting single houses, or prisons, asylums, etc. The possibility of direct passage of the disease from one person to another cannot be denied, but the occurrence is rare. Flint, of Dänemark, found some relation between earlier and later cases in two-thirds of his patients.

The question of the unity or multiplicity of the pneumonia poison would soon be settled.

Clinically the disease presents great diversity even in the same families and sick-rooms. This the author was inclined to explain by assuming a variation in the extent of the development of the infectious poison. He believed that this poison, circulating in the blood, affected with special inflammation or disturbance other organs than the lungs. He cited thirteen cases of pneumonia with acute nephritis in which the kidneys were found to contain the special cocci. He believed that these produced special disturbances of brain membranes or stomach or other organs. Their development gave rise to the irregular curve of pneumonia.

Clinically the disease may be separated into three great groups: first, those in which the general symptoms of infection; second, those in which heart symptoms; and third, those in which the lung symptoms are more prominent.

In reference to prevention, the discovery of the coccus and the knowledge that it is a house-plant is of importance.

As to treatment the author had tried iodine as an abortant without effect. The author gave a

CAUTION AS TO ANTIPYRETICS,

considering them heart-depressants. He pleaded for prophylactic therapy, was doubtful of the ultimate value of bleeding, though it might temporarily relieve the heart. Finally he announced the following conclusions: first, True pneumonia is an infectious disease, usually but not uniformly localized in the lungs; second, exposure to cold is a rare cause. The feeble are more susceptible to it than the strong.

HERR FRÄNKEL, of Berlin, continued the discussion, and took up the subject of the

MICROCOCCUS OF PNEUMONIA.

This coccus is distinguished from others by its gelatinous-like capsule, which may surround two or more cocci. The capsules are not always present. The cocci are stained by a mixture of gentian-violet in water. Injected into rabbits they produce no uniform effect, in mice they cause pneumonia and pleurisy. In dogs pneumonia is sometimes produced. The author found that variations in inoculation effects depended somewhat upon the the cultures, which apparently had an effect of diminishing the virulence of the virus. There was also another encapsuled coccus found in the human mouth, and which was the coccus of sputum-septicæmia. The author announced the following theses:

1. The coccus of pneumonia, which may be isolated by pure cultures from the human being, is inoculable in various animals. Rabbits either prove refractory or become affected with severe general disease, with special localization of the virus in the internal organs—this depending on the mode of culture.

2. Further experiments must determine upon what depends the varying virulence of the coccus.

3. The capsules of the cocci, as well as the "nagelförmige" growth of the pneumonia cultures, are not constant phenomena.

4. The capsules and the "nagelcultur" characterize other micro-organisms, and it cannot be said at present that the pneumonia cocci can be distinguished by them.

HERR FRIEDLANDER, of Berlin, said that the cocci of pneumonia were found in the blood during the disease. He had recently obtained the blood by wet-cups in six cases of croupous pneumonia, every precaution being taken to keep it pure. The blood thus obtained was cultivated for cocci. In one out of the five cases these developed and showed their characteristic action when inoculated. Friedlander thought the capsule and the growth in "nagelform" very characteristic, but not sufficient for a positive diagnosis. The whole life-history must be taken into account. This life-history appears to differ, and this may account for the various forms of pneumonia. Either there are various forms of pneumonia, and only one has the coccus, or in the different forms the same coccus has a different life-history. The chief efforts must now be made to follow out the different changes in the growth of the organism.

DR. GERHARDT, of Würzburg, accepted Jürgensen's view of the infectiousness of the disease. He accepted also completely the view of the unity of the disease, and considered it a happy explanation that the various complications of meningitis, pleuritis, etc., were due to local manifestations of the virus. As to treatment, it must be expectant and symptomatic; in the anæmic and feeble, a stimulating treatment. As anti-febrile means he thought veratrine dangerous; digitalis had not achieved as

much as was expected; kairin acted too irregularly. The most regularly acting substance was nitre (nitrum); in severer cases quinine; in the worst (febrile) cases cold baths with stimulants.

Dr. Fräntzel, of Berlin, argued against Jürgensen's view that pneumonia was a house-disease, citing its occurrence in military hospitals, and its frequency after open-air festivals and exposures. He thought the coccus entered the blood through the lungs. He explained the hæmatogenous jaundice of pneumonia by the theory that the cocci attack the red blood-cells.

Dr. Rühle, of Bonn, contended that the view of the infectious nature of pneumonia was not so firmly established as its advocates assumed. It is necessary still to harmonize some of the known facts as to the etiology of pneumonia with the theory of a coccus. Besides, this coccus had not been found in all cases yet.

Professor Nothnagel said that in pneumonia, as in all infectious diseases, we look for a specific, and meanwhile treat symptomatically. In the last twenty-five years alcohol had entered largely into the therapeutics of the disease. Dr. Nothnagel thought that it was often used unnecessarily and excessively; alcohol is not indicated in ordinary cases of pneumonia, and should not be used except when specially indicated by the failure of heart-power.

Dr. Rosenstein, of Leyden, thought that "though croupous pneumonia may be an infectious disease in many cases, it is not in all." He did not believe in the unity of the disease.

Dr. Bäumler, of Freiburg, said that a patient, a gardener, fell one day into the fire; next day he was brought to the hospital with croupous pneumonia. What rôle the cocci played in such a case was for the future to discover. If pneumonia is an infectious disease, it might be asked whether it is at first a local infection or a general one. With reference to the localization of the alleged virus in other organs, he recalled cases of pneumonia that started off with an acute nephritis; others with a meningitis. These diseases generally ran a parallel course with the pneumonia.

Professor Rosenthal, of Erlangen, read an article upon

THE REFLEXES.

The essential point in the author's paper was that the "reflex-time" is diminished by increase of the sensory stimulus, and varies with the strength of the stimulus. This fact Rosenthal had demonstrated, and he explained it by assuming that in ordinary slight stimuli the impulses pass up the cord toward the medulla, and not directly over to the motor nuclei. This view he based upon experiments in which various sections of the cord were made.

It was suggested, in a brief discussion that followed, that these facts would explain the contradictory results of studies of the tendon-reflex.

Dr. Pfeiffer, of Weimar, read a paper upon

VACCINE AND VARIOLA.

He discussed the modes of entrance and development of these viruses, which he evidently considers modifications of the same thing. He then referred to the various means of enfeebling the variolous virus, *e.g.*, inoculation in man and in animals. He finally described the methods of vaccinating, and recommended the use of calf-lymph. The paper, on the whole, had not much in it that was new.

Dr. Voigt, of Hamburg, contended that calf-lymph by cultivation lost its power, while human lymph, passed from child to child, did not do so.

Professor Leyden, of Berlin, opened a discussion upon

POLIOMYELITIS AND MULTIPLE NEURITIS.

He gave a historical survey of the discoveries in the pathology of progressive muscular atrophy and spinal paralysis of Duchenne.

He then called attention to the fact established by several observers, that certain forms of paralysis and atrophy, involving two or more extremities, were due to a

DIFFUSE MULTIPLE NEURITIS.

This disease began in a more or less acute manner, and ran generally a subacute course. In severity it was mild, severe, or medium, depending on the degree and extent of paralysis and atrophy. It generally progressed symmetrically, the paralysis beginning at the periphery. The tendon-reflexes are lost, and sensory disturbances occur. The pains are peripheral, and there is tenderness, more in the muscles than skin. Degenerative reactions occur in the severer cases.

The progress is not unfavorable generally, and it is these cases which form the reported recoveries from progressive muscular atrophy. The cause is generally rheumatic inflammation of joints and the infectious diseases, while some occur spontaneously after exposure.

Treatment is very important, and upon it depends largely the future course of the disease. Constitutional remedies must be given, with rest. Only later can electricity and mechanical measures be used.

In the discussion which followed Schultze, of Heidelberg, S. Guttmann, Bernhardt, Rumpf, Remak, Althaus, and others took part. It turned upon the pathology of atrophic paralyses, and the differential diagnosis between poliomyelitis and multiple neuritis. Two cases were related, but no especially new investigations reported. The fact that in neuritis the paralysis and atrophy are slower than in myelitis was dwelt upon. The absence of sensory disturbances, and the paralysis and atrophy occurring in muscular groups also characterize poliomyelitis.

Dr. Löffler, of Berlin, read a paper on the

MICRO-ORGANISMS OF DIPHTHERIA.

He examined material from thirty-two cases, and found numerous forms, which he divided into three groups. The first, various bacteria and micrococci; the second, chain-forming cocci, found especially in necrotic parts. They were found also in the internal organs, spleen, heart, kidneys, lungs, etc. A third group consisted of short rods, such as Klebs had found and described. He cultivated the second and third groups by the gelatine method, and inoculated them in mice, rats, and small birds. The results were varying, and had led him to conclude that no special form could be associated with diphtheria. He believed, however, that micro-organisms had important relations to the disease, and probably developed a special chemical poison.

Dr. Weber, of London, read a paper upon

SCHOOL HYGIENE IN ENGLAND, ESPECIALLY IN RELATION TO INFECTIOUS DISEASES.

Dr. Stahl, of Berlin, demonstrated a series of

MICRO-ORGANISMS OF THE INTESTINAL CONTENTS.

He had found and cultivated twenty-five different forms of organisms—micrococci, bacilli, bacteria, etc.

Professor Baginsky, of Berlin, said that for two or three years he had examined the intestines of children. In health he found scarcely any organisms, but in gastro-enteritis and diarrhœa he had found cocci and rod bacteria of various forms.

Dr. Finkler, of Bonn, read a paper upon

PAPAYOTIN.

Most of the preparations of this substance were of very feeble activity. He had made or obtained some preparations, however, which readily digested one thousand times their weight of fibrin. The papayotin acted in acid, neutral, or alkaline media, and was especially valuable, therefore, for rectal injections of food, also for peptonizing milk. He had also used it successfully in digesting and dissolving of croup and diphtheric membrane.

Dr. Rossbach, of Jena, confirmed the opinion of the value of the papayotin in diphtheria.

Dr. Rossbach, of Jena, presented a paper describing

A NEW THERAPEUTIC ACTION FOR NAPHTHALIN.

This was as a germ-destroyer in diseases of the stomach and intestine, especially chronic diarrhœa and dysentery. Naphthalin was very poisonous to the lower organisms, and but slightly injurious to man. In could be given in doses of five grammes daily without bad effects.

(To be continued.)

Army and Navy News.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, United States Army, from May 11 to May 17, 1884.

WATERS, WILLIAM E., Major and Surgeon. Ordered to report for temporary duty to the Commanding Officer at Plattsburg Barracks, New York. S. O. 90, par. 4, Headquarters Department of the East, May 10, 1884.

HUBBARD, VAN BUREN, Major and Surgeon. Relieved from further duty at Fort Stanton, New Mexico, and ordered to Fort Bayard, New Mexico, for duty. S. O. 96, par. 3, Headquarters Department of Missouri, May 12, 1884.

MOSELEY, E. B., Captain and Assistant Surgeon. Assigned to temporary duty at Vancouver Barracks, Washington Territory. S. O. 59, par. 6, Headquarters Department of Columbia, May 8, 1884.

WILCOX, TIMOTHY E., Captain and Assistant Surgeon. Assigned to duty at Washington Barracks, D. C. S. O. 90, par. 2, Headquarters Department of the East, May 10, 1884.

WALES, P. G., First Lieutenant and Assistant Surgeon. Assigned to duty at Old Fort Colville, Washington Territory, until further orders. S. O. 58, par. 3, Headquarters Department of Columbia, May 7, 1884.

Official List of Changes in the Medical Corps of the U. S Navy, during the week ending May 17, 1884.

KINDLEBERGER, D., Medical Inspector. To be Fleet-Surgeon of Pacific Station.

LEACH, PHILIP, Assistant Surgeon. Detached from U.S.S. New-Hamphire, and ordered to Naval Hospital, Chelsea.

BERTOLETTE, D. N., Passed Assistant Surgeon. Detached from Naval Academy and ordered to Practice Ship Dale.

Medical Items.

CONTAGIOUS DISEASES—WEEKLY STATEMENT.—Report of cases and deaths from contagious diseases reported to the Sanitary Bureau, Health Department, for the week ending May 17, 1884:

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Cases.								
May 10, 1884.....	6	5	100	3	102	45	0	0
May 17, 1884.....	5	3	86	4	110	42	1	0
Deaths.								
May 10, 1884.....	0	2	18	2	7	20	0	0
May 17, 1884.....	1	2	19	1	13	15	0	0

EXTIRPATION OF THE LARYNX IN AN OLD MAN.—In August last (*British Medical Journal*), Dr. H. Leisrink extirpated the larynx in a man aged seventy-two years, on account of a cancerous tumor which nearly filled the cavity and threatened suffocation. The patient recovered from the operation, and remained in good health for four months. He died in December, of croupous pneumonia. There had been no return of the disease for which the operation was performed.

THE USE OF THE ELECTRICAL CURRENT IN THE TREATMENT OF SUBINVOLUTION.—Dr. Finlay Ellingwood, of Manteno, Ill., writes: "I have treated four cases of subinvolution with the galvanic current, all of which followed confinement. The method I have adopted is to apply the positive electrode for a short time over the sacral plexus, and then for a short time over the fundus uteri and abdominal muscles, with the negative electrode at the os uteri. In those cases of not more than six or eight weeks' duration two or three applications were generally sufficient, and the effect was like magic, a satisfactory cure resulting in each case. The last case was one of long standing, the uterine hypertrophy having existed for at least three years, as the patient had been treated three years previously and temporarily relieved from the same symptoms exhibited to me. The symptoms, at the time of my first visit, were severe in the extreme. A retention of urine had existed for forty-eight hours; the temperature and pulse were exalted, and the pain and suffering were intense. After evacuating the bladder an examination revealed a uterus prolapsed, greatly enlarged, and actually impacted within the pelvic walls. There also existed a complete laceration of the cervix of long standing, which had probably occurred at the time of her only confinement, seven years previously. I had her assume the genu-pectoral posture, and after careful and prolonged manipulation succeeded in replacing the womb. I submitted the patient on alternate days, for four or five weeks, to a mild galvanic current, the result of which was in every way satisfactory. She refused to submit to an operation for the laceration, claiming after the galvanic treatment to enjoy better health than for years before."

TREATMENT OF EARACHE.—It is said that by the following simple method almost instant relief of earache is afforded: Put five drops of chloroform on a little cotton or wool in the bowl of a clay pipe, then blow the vapor through the stem into the aching ear.

A PHYSICIAN'S PRAYER.—The following prayer was found among the papers of the late Dr. C. F. Couch, of Petersburg, and it is so good an one for physicians that I ask the favor of an insertion in your valuable paper. Perhaps some others of the faculty may gain a blessing on their practice by using it. Truly yours, B.

"O Thou Great Bestower of Health and Comfort, grant Thy blessing upon the professional duties in which this day I may engage. Give me judgment to discover disease, and skill to treat it; and crown with Thy favor the means that may be devised for recovery; for with Thine assistance the humblest instrument may succeed, as without it the ablest must prove unavailing. Save me from all sordid motives, and endow me with a spirit of pity and liberality toward the poor and of tenderness and sympathy toward all, that I may enter into the various feelings by which they are respectively tried; may weep with those that weep, and rejoice with those that rejoice. And sanctify their souls as well as heal their bodies. Let faith and patience, and every Christian virtue they are called upon to exercise have their perfect work, so that in the gracious dealings of Thy Spirit and Thy Providence they may find in the end, whatever that end may be, that it has been good for them to have been afflicted. Grant this, O Heavenly Father! for the love of that adorable Redeemer who while on earth went about doing good, and now ever liveth to make intercession in heaven. Amen."—*The Parish Visitor.*

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Original Articles.

ALBUMIN AND ITS NOMENCLATURE AND TESTS, AND THE SIGNIFICANCE OF ALBUMINURIA.

BY HENRY B. MILLARD, M.D., A.M.,

MEMBER OF THE MEDICAL SOCIETY OF THE COUNTY OF NEW YORK, VICE-PRESIDENT OF THE NEW YORK MEDICO-CHIRURGICAL SOCIETY, HONORARY MEMBER OF THE SOCIÉTÉ ANATOMIQUE OF PARIS, ETC.

IT is incomprehensible to me that nearly all English-writing physicians, among whom are to be numbered many who have achieved distinction in medical pathology and in their writings upon renal affections, should continue to use the word albumen to denote what it does *not* signify, that is, neither the proximate principle of *albumen*, nor serum albumin or paraglobulin. I know no medical dictionary, encyclopædia, nor chemistry published for a long time that uses the termination *en* at all. In the best Latin dictionaries albumen signifies simply the white of the egg. Very few authorities or writers on chemistry speak of egg albumen;—the word albumin being, I believe, exclusively used. The celebrated French medical dictionary of Littré and Robin gives two different words: "*albumen;* a Latin word employed sometimes in French to designate the white of the egg," and "*albumine;* the coagulable matter or lymph of serum." In the Real Encyclopädie, I do not find the word albumen at all, the termination *ine* only being used. Nor is the termination *en* used in Watts' "Dictionary of Chemistry." In French, the word *albumine* is used; in Spanish and Italian, *albumina*. If the word albumen be the correct one to use in physiological chemistry, to be consistent we should use the word albumenuria, instead of albuminuria.

As regards the practical value of accurate nomenclature, I would simply say that the language of science should represent as nearly as possible what it is intended to. I believe, however, the termination *in* will in time be generally employed.

THE MOST ACCURATE TESTS FOR ALBUMIN.

Aside from the recognition by the microscope of pathological changes in the kidney, the importance of the presence or absence of albumin in the urine, as demonstrated by chemical examination, is very great. It is consequently a desideratum, by tests which are not too elaborate for the general and busy practitioner, to be able to recognize unerringly the existence of albumin, and not to mistake for it other substances whose presence often produces, with certain tests, a simulation of it, as the parapeptones, vegetable alkaloids, mucin, etc.

Although in my work on Bright's disease, published last year, I described some tests which their prominence at that time seemed to make it necessary for me to do, and which, indeed, after considerable use seemed to me to have certain merits, I have since discarded them. I refer to Roberts' brine test and picric acid. The chief objections to picric acid are that although it is a delicate test for albumin, like the brine test, it is objectionable from producing a precipitate with the parapeptones and all proteian compounds. (The existence of peptones in the blood has not yet, I believe, been demonstrated.) It is stated that these may be recognized by their clearing up on the application of a low degree of heat. I do not find this, however, to be the case, either in peptonuria or in artificially prepared peptones. Picric acid also precipitates mucin, which may be known by its forming filaments upon the application of heat; that it forms precipitates with quinine and the oleoresins is unimportant, as these disappear by heat or on the addition of alcohol.

I have repeatedly found the brine test, used by Heller's method, to show a clear white line like that produced by nitric acid, where the existence of albumin could not be shown by any unmistakable tests. Nor does it offer any advantages over certain other absolutely positive and accurate tests which I shall describe.

Among the tests which may be mentioned as a matter more perhaps of interest than for their practical value are *metaphosphoric acid* and *terchloracetic acid*. The former, I think, has more to recommend it than the two preceding tests, as it gives no reaction with quinine, and but a very slight one with artificially prepared peptones; this latter, however, only disappears in part upon the application of heat. I am not certain if it will give a reaction with peptonuria. It is, however, an equally delicate test with the tungstate of soda and picric acid, and more so than nitric acid.

Terchloracetic acid is a more sensitive test for albumin than nitric acid, and is quite as sensitive as tungstate of soda or Tanret's test. I have not convinced myself, however, that it does not give a reaction with the parapeptones. If it did not, it would be valuable. As it is, it cannot be depended upon, inasmuch as the cloudiness or disk produced by it with albumin disappears upon applying heat. It gives no reaction with artificial peptones.

The most reliable and delicate tests I believe to be, in the order of their sensitiveness, *heat, nitric acid, the tungstate of soda, the double iodide of mercury and potassium* (Tanret's test), and the *phenic-acetic acid* test, the last two, perhaps, being about equal in delicacy.

Heat I have found the least sensitive, though Dr. Roberts claims to be able to detect 1 part in 250,000 of water. The urine should be clarified before using this test by filtration or boiling with liquor potassæ, and should be rendered faintly acid by adding acetic acid before applying heat. I have used the heat test with serum albumin chemically prepared and with albuminous urine, but have not found it to show the presence of albumin in the slight degree stated by Roberts. Nevertheless, if care be taken not to acidulate the specimen too much, heat is in many cases, perhaps in most, a good test. My own experience, however, has been to the effect that it could be dispensed with in favor of the other four above mentioned.

Nitric acid.—The reaction produced by this reagent is not likely to be mistaken for anything but the urates, and these are easy of recognition. It is not so sensitive a test, however, as the three following, which show it in more highly diluted urine and solutions of dried albumin from the blood than does nitric acid. It is valuable, however, because albuminuria so slight in quantity as not to be shown by nitric acid is frequently, *cæteris paribus*, of but little practical importance, because there should be no difficulty in distinguishing the reaction produced by it from that produced by other substances; and finally, because the thickness of the line or layer produced by Heller's method with it gives, according to Hofmann and Ultzmann's calculations, a very fair idea of the percentage of albumin.

The *tungstate of soda* is entitled to high commendation. It is not caustic and does not stain, it is cheap and easily prepared, and is a more sensitive test than either of the preceding. Artificial peptones are precipitated by it but very slightly, but I cannot find that it precipitates the parapeptones, and it gives no reaction with quinine. I have yet found no objections as regards its accuracy and freedom from reaction with other substances than albumin.

The *double iodide of mercury and potassium*, known as Tanret's test (not Tauret, as usually given; Tanret, its discoverer, being the well-known *pharmacien* of Paris who discovered ergotinine and pelletièrine), is an exceedingly sensitive and in every way an accurate and satisfactory test. The formula for the test is not often in England and America correctly given, and I regret that I myself in my work gave the formula usually presented, without thinking of comparing it with Tanret's, which I had; the error, however, consisted only in the omission of the acetic acid, the use of which makes unnecessary the acidulation of the urine, as I recommended. The correct formula is as follows:

Potassii iodidi	3.32 grm.
Hydrargyri bichloridi	1.35 grm.
Acidi acetici	20 c.c.
Aquæ dest. q. s. ut ft	100 c.c.

It may be easily prepared as follows:

"The 3.32 grm. of the iodide of potassium are placed in the bottom of a glass and a slight quantity more of distilled water than is necessary to dissolve the salt poured upon it; then in a second glass is placed 1.35 grm. of the bichloride of mercury and a few drops of water poured upon it, so as to produce a pasty consistence; then there is poured upon this gently down the side of the glass the contents of the first glass, taking care to agitate it constantly; the biniodide of mercury is immediately found manifested by an intense red. This mixture is stirred and distilled water added drop by drop till the redness has completely disappeared; the slightly yellowish liquid thus obtained is poured into 80 c.c. of distilled water, 20 c.c. of acetic acid are added, and the mixture filtered. A liquid is thus obtained which is very transparent, almost colorless, and which can be preserved for a long time" (Capitan).

I have used this test experimentally with diluted albuminous urine, dried egg- and blood-albumin, artificial peptones, and various alkaloids, and have found it to be extremely sensitive and certain in showing the presence of all proteian substances. Capitan shows that 0.0035 c.c. of albumin to 1,000 grm. or one litre (about $\frac{1}{10}$ grain to a litre, or 1 part to more than 300,000) may be detected by it when all other reagents had ceased to show it. Indeed, when this test showed the presence of 0.015 grm. to the litre none of the other tests showed it. Nitric acid, picric acid, and heat did not show even 0.03 grm. to the litre. Of course, to detect the presence of such minute quantities of albumin, great care must be taken. It may be employed by placing the urine in the test-tube and letting the reagent trickle down upon it along the side of the tube by means of a pipette, when a cloudiness will result. On warming, this will remain uniform or resolve itself into flakes, according to the amount of albumin present. I think the best method, however, is to place the reagent first, and let the urine, which should be cleared if turbid, run slowly down the test-tube upon it. The two liquids thus remain separated, and at the point of contact a bluish disk is seen, more or less thick. This method permits the easy recognition of "absolutely infinitesimal quantities" of albumin (0.005 gr. or 0.0035 grm. to the litre). The specific gravity of the reagent thus prepared is about 1.027. It is a good plan to mark the specific gravity of this and the tungstate on the labels, as where the urine is very heavy it will take its place at the bottom of the tube.

It is important to recognize that other substances produce a reaction with this test resembling that produced by albumin; these are the urates in excess, peptones, quinine, and atropine—these are all readily soluble by heat and alcohol. The precipitate or cloud produced by morphine and strychnine with this reagent is not soluble by heat and alcohol when *strong* solutions are artificially prepared, but is soluble by heat in weak solutions, and would easily disappear in the minute quantities that would be likely to be found in the urine. All the above, when dissolved by heat, reappear when the urine or solution containing them becomes cold. Mucin is also coagulated by this reagent, but upon the application of heat resolves itself into fine filaments. The existence of mucus is also easily recognizable by the microscope. I can see, therefore, no error likely to result from this test. It is simple, and certainly sensitive enough for all purposes.

Phenic and acetic acid.—Having seen somewhere, within a year or two, a paragraph wrongly attributed, as I have ascertained, to the *New York Medical Journal*, to the effect that Dr. Meynott Tidy had found that equal parts of phenic and acetic acid would show the presence of a small quantity of albumin, I have recently made it the subject of careful experiment, using urine containing parapeptones, albuminous urine, artificially prepared peptones, dried egg- and serum-albumin, and several alkaloids. The preparations recommended by Dr. Tidy are by no means satisfactory—turbidity of even distilled water being produced. A mixture of one part of a ninety-five per cent. solution of phenic acid and three and a half parts of pure acetic does not, however, produce more than transient cloudiness. I discovered, however, *that albumin shown by this mixture invariably disappeared upon applying heat*, rendering the test of no practical value. By adding to the phenic and acetic acid *liquor potassæ*, however, I find that though the peptones, etc., disappear by heat, the *albuminous disk* or cloud does not; this I have repeatedly verified.

The proportions of the modified test as I use it are these:

℞.	Acid. phenic. glacial. (95 per cent.)	3 ij.
	Acid. acet. puri	3 vij.
M.	Add liquor potassæ	ʒ ij. 3 vj.

It is important that the glacial carbolic acid should be used, or the mixture, which should be quite clear, will be turbid. Thus prepared I find the test a perfectly satisfactory one. Where the two acids are used without the potash, I presume that an acid albumin is formed which is prevented by the addition of the potash.

This test appears to me, from my own experience, to be as sensitive as Tanret's, and perhaps more so, and like it produces no reaction with other substances than albumin that cannot be easily accounted for. In a number of instances where Roberts' muriated brine test and picric acid showed parapeptones manifested by disappearing by heat after Tanret's test, this showed no reaction.

It forms a precipitate with artificially prepared peptones and with strong solutions of quinine, both easily soluble by heat and alcohol. With strychnine it presents no reaction except in strong solution, when it produces a slight cloud, and this readily disappears by heat. With strong solutions of atropine and morphine it produces a reaction, the precipitate being soluble by heat when diluted. These alkaloids would not occur in the urine in sufficient quantity to produce a reaction. I have produced slight opacity or turbidity in urine with this test, in which albumin had been shown by all the other tests I have mentioned, but when the urine was greatly diluted all except this one failed to give a reaction. Like Tanret's test, when albumin is present in minute quantities, as 0.005 grm. or 0.0035 grm. to the litre, it does not form a disk, but produces a loss of clearness, the opacity being of a slightly yellowish or greenish tinge, the cloudiness produced by Tanret's test being slightly opalescent.

To sum up, then: I believe that in the double iodide of mercury and potassium, the tungstate of soda, and phenic-acetic acid test, we have three reagents which combine the *desiderata* of extreme sensibility, accuracy, and simplicity. The phenic-acetic test has the advantage over Tanret's that it shows no reaction with quinine, and if I adhere somewhat preferably in my examinations principally to the latter, it is because it has served me so well; it is perhaps good enough, but it is of importance to know that the phenic-acetic test seems equally good.

As to heat and nitric acid, I use them sometimes; they are less delicate than the others, and I believe the former could be dispensed with entirely, as it is sometimes troublesome with acid-albumin or alkali-albumin. The nitric acid has the advantage of showing approximatively the percentage of albumin, and its indications are positive.

I cannot see, if I am correct in my observations, that there should be the embarrassment that is claimed to exist in the selection of reagents for the detection of albumin with care and certainty.

ALBUMINURIA OCCURRING IN HEALTH.

Previous to the extensive experiments made last year by Drs. Chateaubourg and Capitan, of Paris, the occurrence of albumin in the urine as a physiological phenomenon was conceded by several authors, first, I believe, by Gubler in 1865, and afterward by Ultzmann, Vogel, Dukes, Leube, Morely, Rooke, Saundby, Senator, and others, though the majority of observers, among whom may be mentioned Dr. G. Johnson, regard the occurrence of albumin in urine as "always pathological and never physiological." The observations of the above authorities are not all to be necessarily accepted as accurate, for the reason that the methods of ascertaining the presence of albumin, the reagents used, etc., are not generally given, and the apparent albuminuria may sometimes have been peptonuria. In 1883, however, experiments on a large scale were instituted by Capitan and Chateaubourg, independent of each other and under the most favorable auspices. The subjects were young soldiers from various arms of the army, fulfilling all requirements of health and free as far as could be known from unfavorable antecedents, and young school-children in perfect health. The reagents and the amount of albumin are given, and the conditions under which the albumin was found stated: as after rest, long marches and manœuvres, fasting, cold bathing, unusually hard study, etc. Capitan also showed that albumin could be produced in the urine by irritating certain portions of the brain, the spinal cord, by exciting the nerves, by irritation of the abdominal plexus, by cutaneous excitation, etc. It is, however, albuminuria occurring under the ordinary circumstances of health that we have to consider, the practical part of the matter being to determine how much the presence or absence of albumin imports as showing a normal or abnormal condition of the kidneys. The presence or absence of albumin in the urine neither indicates health or disease; but it is unjustifiable and even dangerous, because experimenters have frequently found albumin in health, to go to the extreme of decrying its great importance as a factor in diagnosis, and often as an evidence of disease of the kidneys. I am led to dwell upon these points because, in my work on Bright's disease, I gave a very meagre digest of the experiments above referred to, showing in what a large percentage of cases albumin could be found in the urine in health, and some medical journals, quoting these facts, have seemed to conclude from them that albumin occurs frequently without having any special significance. This extreme is dangerous, since it by no means follows that, because albumin may be found after exercise, cold bathing, and even after repose, by very delicate tests, and sometimes in very minute quantity, its ordinary or frequent occurrence, particularly if considerable in amount, is not to be regarded with solicitude.

As regards the amount of albumin found in the urine of soldiers after nearly two days' rest: in 54 cases out of 98 albumin was absent; in 20 cases there was only 0.007 grm. to the litre; in two others only 0.15 grm.; the others contained more.

The urine of 120 soldiers was examined immediately after waking, and in 92 (that is, 76 per cent.) albumin was found. In 10 cases, however, there was only 1 to 5 milligr. to the litre, and in 33 only 2 to 3 ctgr. to the litre. In 22 there was 12 ctgr. (2 grains) to the litre.

In the urine of 199 soldiers, after severe manœuvres and exercise, albumin was found in 170 cases, in nine cases it being readily recognizable by nearly all reagents, the smallest quantity being 5 milligrm. to the litre. In other of the experiments only 0.0035 grm. to the litre was found. The largest percentage was after the cold bath and severe exercise, as much as 25 ctgr., 4 grains to the litre (about 1 part to 4,000, or one-fortieth of one per cent.), and in some cases more being found.

It will thus be seen that albumin in health is not often found, except in minute quantities, sometimes not more than one part to a million.

An article by Dr. Purdy, published within the last year in the *Journal of the American Medical Association*, gives some of the conclusions of Chateaubourg and Capitan, attributed wrongly wholly to the former, and probably taken from my own work, since it contains like it some unimportant errors in compilation. The article referred to gives no idea—an indispensable consideration—of the *amount* of albumin found.

The works of Chateaubourg[1] and Capitan[2] were published in Paris last year, just previous to my leaving there, and as my book went to press immediately upon my return home, I was able to incorporate in it only a few of the details and valuable results of these investigations, but was obliged to content myself with giving a few of the most important, and these afford but a faint outline of their excellence and thoroughness.

It is not impossible that albumin almost always or constantly exists in the urine in health, in too minute quantities to be detected by any means we at present possess. If we accept the conclusions of Charcot, deduced from the experiments of Nussbaum, Overbeck, Heidenhain, Goll, Stockvis and others, that the glomerulus is the seat of albuminous exudation or secretion, and that this secretion results from diminished slowness and pressure, or entire suspension of the blood-current in the glomerulus, producing an oxæmia or a deoxygenated state of the blood (increased pressure producing not albuminuria, but polyuria), we can understand that albumin recognizable in the urine may be produced by transient causes, and there are many such affecting the rapidity and pressure of the blood-current in the glomerulus, quite independent of any renal lesion or changes. I beg to quote the following relative to this point from my own work (page 47):

"The theory that albumin makes its way through the capillary plexus and the basement membrane, when there is great congestion, is erroneous. Many authors state that in parenchymatous nephritis, where the epithelia have perished, there is a constant leakage through the basement membrane of the tubules. But the albumin must then make its way through the blood-vessels and structureless membrane. I have shown, too, that when the epithelia perish they are invariably replaced by an endothelial growth. The albumin would then have three layers of tissue, unlike in their formation, to traverse.

"It has been repeatedly demonstrated, also, that the albumin of the blood cannot transude, under ordinary circumstances, animal membrane. The urine and albumin are in all cases affected, as is easily shown, by all variations of the arterial or venous circulation of the kidney, and serum albumin in the urine cannot exist without

[1] Recherches sur l'Albuminurie Physiologique.
[2] Recherches Expérimentales et Cliniques sur les Albuminuries Transitoires.

these variations. And it is indeed within the capsule of Bowman that albumin is transuded or secreted. In the language of Charcot, 'numerous cases may be cited in which albumin is found in the urine without any appreciable lesions in the epithelia; and, inversely, there exist many observations where the alterations of the epithelia was undeniable, and where, nevertheless, albumin was completely absent.'"

It can thus be readily understood that without the existence of nephritis, albumin may often be found in the urine; nevertheless when it occurs frequently, and in such quantities as the one-fortieth to the one-twentieth or one-tenth of one per cent., *it may be regarded in the majority of cases as an evidence of renal lesion.* Of course we must except the existence of albumin produced by other causes, as cystitis, hæmaturia, etc. I believe that in all cases where the albumin exists in the urine almost constantly, and in such quantity as I have mentioned, the microscope will show evidences of renal inflammation.

In fatal cirrhosis of the kidneys, however, where the average specific gravity of the urine will not exceed 1.006 or 1.007, all abnormal elements may be temporarily absent, and when they are present numerous and careful examinations may be necessary before they can be found. That constant albuminuria, even with a considerable amount of albumin, does not always denote extensive lesions of the connective tissue or epithelia of the kidney, I have repeatedly convinced myself. I have had under my care for more than a year a number of patients whose cases exemplify this fact. The first is a gentleman seventy years of age, the average specific gravity of whose urine is 1.021, and which always contains at least one-tenth of one per cent., often one-fifth of one per cent. or more of albumin. His own constitution and those of his family on both sides are remarkably excellent. There is often a tendency to a considerable increase of the percentage of albumin, and there was before he came under my care some headache and lassitude. No loss of flesh. I have often found considerable uric acid and urate of soda in the urine, a condition which does not ordinarily correspond to extensive interstitial nephritis. The microscope usually shows a few epithelia from the renal tubules, and an occasional hyaline cast. There is no hypertrophy of the heart, a fact not in accordance with the belief of many writers, among others Bartels, that this always exists in chronic interstitial nephritis. I have, however, often found the latter without the former. Sixteen years he suffered from croupous nephritis with dropsy, and it is possible that this may have laid the foundation of the ailment which now exists. I believe the nephritis in this case affects only a limited portion of the connective tissue, or that the inflammation may be limited to *one* kidney. Certainly there is enough of the kidneys untouched by disease to enable the secretive functions to be carried on without much detriment to the health. I would not have it understood, however, that I regard the disease in his case to be *unimportant;* on the contrary, I think without certain precautions and measures of treatment there might be great danger of uræmic symptoms; some of these consist in the use of the hot-air bath two or three times weekly; a non-nitrogenous, or only moderately nitrogenous diet, freedom from fatigue, which is possible in this case, the use of some medicines, among which may be mentioned the chloride of iron, arsenic, the Bilin (lithia), and Bourboule water (alkaline, iron, and arsenical). The same precautions and care have been taken in the following cases:

Mrs. X——, sixty-five years of age, like the preceding patient having an excellent constitution, and belonging to a family noted for longevity. The average specific gravity of the urine is 1.020. Previous to consulting me she suffered from headache, dry tongue, and thirst, and great debility. Urine highly albuminous, showing under the microscope the existence of chronic interstitial nephritis. Heart somewhat hypertrophied. Treatment, hot-air baths, etc., have brought about an improved condition, so that the health and strength are now practically good. The amount of albumin is small, not usually more than one-fortieth to one-twentieth of one per cent., and is occasionally absent. I believe from her symptoms that the nephritis had existed in this case for a long time before I saw the patient.

The third case is that of a lawyer, forty-five years of age, actively engaged in practice. Like the others, the constitutions of this patient and his family are remarkably good. The nephritis in this case may have been the result of scarlatina, which he contracted two years ago. Of that, I am not certain. When I first saw him, last October, he suffered from great exhaustion and a tendency to headaches. Some loss of flesh; heart not hypertrophied. The chemical and microscopic examination showed the existence of chronic interstitial nephritis; albumin always found in quantities of one-tenth to one-fifth of one per cent. With a careful diet, plenty of sleep, the hot-air baths and same treatment, he experiences no symptoms of any sort, and is able to attend to a large law practice. In January, however, he became over-sanguine about his health and seemed to think my injunctions unnecessary, and neglected his baths and diet. The result was a return of lassitude and headaches, which disappeared with a resumption of treatment, etc.

Cases like the above, occurring in people of poor constitution and with bad inherited tendencies, would not long remain mild and comparatively harmless nephritis. Much depends upon the soil the seed is sown in, and I have known chronic interstitial nephritis commencing in the mildest possible way, in persons of scrofulous and consumptive families, to prove fatal within a year without the slightest impression that I could recognize being made upon the disease by any measures of treatment or hygiene.

In a case of cirrhosis of the kidney with hypertrophy of the heart, in a girl thirteen years old, which had existed a long time before she came under my care last November, albumin was in February absent from the urine for nearly four weeks, during which period, however, the uræmic symptoms were most prominent, there being congestive headaches, fainting, violent and irregular action of the heart, with a decided threatening of convulsions. For ten days the gravity of the symptoms was such, that death seemed likely to occur at any moment. At present (May 1st) she enjoys better health than for a year or two, except that she is thin and somewhat pale, and the hypertrophy of the heart is easily recognizable; she is entirely free from symptoms of every sort, and yet albumin, about one-fifth of one per cent., can almost always be found.

Thus one may have chronic albuminuria accompanying nephritis, and the health, with reasonable care, not greatly suffer thereby; while cirrhosis of the kidney may bring its possessor to death's door, and albumin be a great part of the time absent from the urine.

SPECIFIC TREATMENT OF DIPHTHERIA.—At a recent meeting of the Académie de Médecine, Dr. Delthill read a memoir on "The Specific Treatment of Diphtheria," which may be summarized as follows. Fumigation with two hundred grammes of tar and eighty-three grammes of turpentine dissolves the false membranes of diphtheria. These fumigations are disagreeable neither to the patient nor to the attendants, and may be repeated every two or three hours according to the gravity of the case. They destroy parasites and micro-organisms. At the onset of the affection their use results in cure. When tracheotomy is the only resource, they increase the chance of recovery. Dr. Delthill has devised a burner in which the above-named substances may enter into combustion without danger.

A CASE OF LITHOTOMY.

DEATH AFTER EIGHT MONTHS FROM MILIARY TUBERCULOSIS—AUTOPSY.

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THE following case seems sufficiently interesting to warrant its being detailed at some length. The details to be enumerated are an attempt at lithotrity, which failed; lithotomy, which was successful; subsequent miliary tuberculosis, and death, with autopsy.

The patient, sixty-nine years of age, had suffered during several years with difficulty in micturition. For several months he had drawn water wholly by catheter, and for ten weeks had not been out of the house. About March 1, 1883, I sounded the patient for stone, but could find none. The bladder was found to be extremely rough, and as there was no urine in the bladder and the searcher was moved about only with difficulty, it was decided to sound a week later, when, with about four ounces of urine in the bladder, a stone was discovered.

March 15th lithotrity was attempted. For a considerable time no stone could be felt, but finally, by turning the beak of one of Bigelow's largest lithotrites down behind the prostate and pressing the blades firmly downward into the base of the bladder, the stone could be touched. It could not be seized, however, by any manipulations, though a persistent effort was made.

The prostate was much enlarged, and an effort to push the stone upward with the finger in the rectum also failed. The conclusion was reached that the stone was encysted, and further effort to crush was abandoned. Manipulation of the lithotrite had been very difficult on account of the great roughness of the bladder. The following morning the patient had no fever or pain. The urine was normal and there were absolutely no evil effects from the instrumentation. One week later it was decided to again attempt crushing, and if this failed to proceed at once to lithotomy.

This was done in the presence of Dr. Thayer, of Cleveland, and Dr. Noble, of Oberlin, by whom I had been called to operate the case, and who afterward aided me in caring for it.

Again crushing failed utterly, it being impossible to do more than touch the top of the stone with the beak of the lithotrite. Accordingly left lateral lithotomy was performed, and the stone was seized with great difficulty with curved forceps and removed. It was a stone in the form of a disk, 1¼ inch in diameter and ¼ inch in thickness, with roughened edges and flattened upper and lower surfaces. It weighed when dry 76 grains. Although the incision was a large one, only the tip of the finger could be made to project into the bladder, and that only by pushing with considerable force. The lower lobe of the prostate could be felt projecting into the bladder perhaps half an inch.

It was noticed while washing the bladder with the finger in the wound that the outflow of water was not very free, but was thought to be sufficiently so to allow the escape of urine that might be secreted.

The patient stood the operation badly. The next morning, eighteen hours after the operation, his temperature had not risen above 97.5°, and the pulse was 130 and feeble. There had been constant nausea. The urine which at first had been discharged from the wound had ceased flowing, and the bladder was found on percussion to be full of urine. The water was drawn by means of a silver catheter, and though the amount withdrawn was not large, there immediately followed the most profound collapse and death seemed imminent.

The pulse was 160 and intermitting, the skin was covered with cold perspiration. There was alternately sighing and almost imperceptible respiration, the eyes were glazed and the lower jaw dropped. The pillows were removed, the foot of the bed was raised, hot bottles were placed about the body and limbs, subcutaneous injections of brandy and digitalis were given, followed by enemata of brandy. No reaction occurred for about two hours, when there was slight improvement and the patient showed some consciousness. Five hours later the temperature had risen to 99°.

During the week following the patient retained absolutely no nourishment on his stomach. Vomiting and hiccough were almost constant, hiccough continuing most of the time during sleep.

The patient was nourished solely per rectum, and was quieted by subcutaneous injections of morphia.

For two days following the operation the patient was catheterized at regular intervals, no urine passing by the wound, and the urine was extremely offensive. The third day a catheter was inserted and left in place, and the bladder was washed out, after which the character of the urine greatly improved.

After a week the patient's general condition began to improve and he gradually was nourished wholly by the mouth.

The catheter was removed from time to time, but, though attempted, it was found impossible to permanently remove it for five weeks. During this time the bladder was washed out at first with Sir Henry Thompson's solution of borax and glycerine water, and later by a very dilute solution of nitrate of silver, which latter seemed very beneficial.

There seemed to have been no evil effects remaining from the prolonged retention of the catheter. The patient's improvement was now marked. May 8th, about six weeks after the operation, the wound in the perineum was healed; the patient could hold his water from 9 P.M. to 5 A.M., and during the day for about five hours, when he drew it with a soft rubber catheter. His relief was complete, the urine was normal, and he was riding and walking out. The first week in June, after a longer walk than usual, the patient was seized with pain in his left side, accompanied by some fever. I saw him several days later and found, on percussion, fluid rising to the nipple. June 18th, two weeks after the attack, I saw him again, and the fluid reached to the third rib in front, with the patient lying flat on his back. It was decided to aspirate, and exactly three pints of fluid slightly tinged with blood were removed.

There were absolutely no unpleasant symptoms accompanying or following the aspiration. There followed immediate and marked improvement and there was no re-collection of the fluid, and respiration and percussion were soon normal to the base of the lung.

In August the patient had an attack of orchitis in the left testicle, which continued several weeks and disappeared. In September followed a slight attack of sciatica in the right leg, the patient being subject to rheumatism.

At this time I reported the case to the medical society of this city, and from the paper read at that time I extract the following summary of the case: "1, The stone was evidently encysted, and thus could not be seized and crushed with a lithotrite; 2, although the prostate was freely incised, its size prevented the discharge of urine by the wound 3, the catheter, retained by necessity in the urethra during five weeks, produced no evil results; 4, aspiration of a large pleuritic effusion in a man aged sixty-nine was followed by complete relief, no fluid re-collecting."

In further discussing the case I cited two cases of encysted stones which I had seen in the hands of other surgeons. In one of these crushing had been attempted, and though the stones had previously been felt by others, at the time the operation was attempted no stone could be felt, and the operation was abandoned. Six weeks later the patient died, and at the autopsy two small encysted stones were discovered.

With regard to the failure of the urine to escape by the perineal wound I cited a discussion reported in the *New York Medical Journal* for January 27, 1883, in which Dr. Sands spoke of an experience similar to mine, in which he inserted a catheter the second day after the operation, leaving it in place eleven days.

Dr. Post, at the same meeting where this case was discussed, cited a similar experience, where death ensued, and also referred to a remark of Liston, of Edinburgh, stating that he was in the habit of leaving a catheter in the bladder after lithotomy. Dr. Weir also referred to a case of Dr. Buck's, followed by retention. My conclusion was that in cases where the finger is felt to be grasped by the bladder-wall, it would be well to leave a catheter in the urethra.

With regard to the pleurisy, my conclusion was that, not having occurred until ten weeks after the operation for lithotomy, and being followed by complete recovery, it did not depend upon that operation.

After the above report was made, the patient was quite comfortable for some time. During the latter part of October, however, after a very rough ride he was not so well. He had a slight fever much of the time and his respiration was more rapid. I saw him November 10th, and at that time examined him carefully. In the left back there was dulness extending from the base of the lung up to about the inferior angle of the scapula, but not reaching to the axillary line. There were no râles, but the respiration was very weak and jerky, and a positive diagnosis was not established. The fact that the serum which had been removed by aspiration was slightly tinged with blood suggested the possibility of some malignant disease. Occasionally the patient complained of pain, lasting for some time, in the region of the bladder. The patient gradually grew weaker and the respiration more frequent, so that he seemed oppressed for lack of air, and on December 2d, without other symptoms than slight fever and quickened respiration, he died, eight and a half months having elapsed since the operation.

The autopsy is of special interest when compared with the clinical history.

The right kidney was normal. In the pelvis of the left kidney were found several small stones, just of sufficient size to prevent their passage into the bladder.

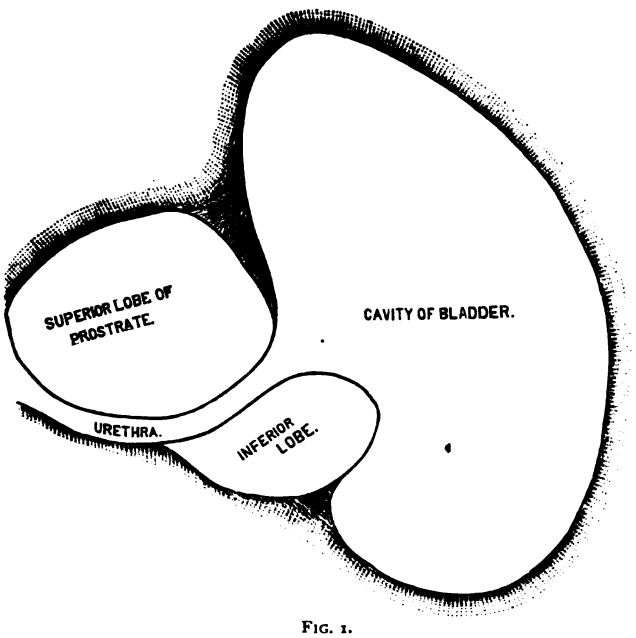

FIG. 1.

In the bladder were found several gravel, which had evidently come from the pelvis of the kidney, and it had been their passage that had caused the pain. The mucous membrane of the bladder was somewhat roughened, but the chief point of interest was the large size of the prostate gland. The accompanying section of the bladder (Fig. 1) shows the size and form of the prostate when divided vertically. It will be seen that the lower lobe projects far into the bladder, and this is what prevented the stone being seized by the lithotrite, and is what was felt when the finger was carried into the bladder through the wound. The second drawing (Fig. 2)

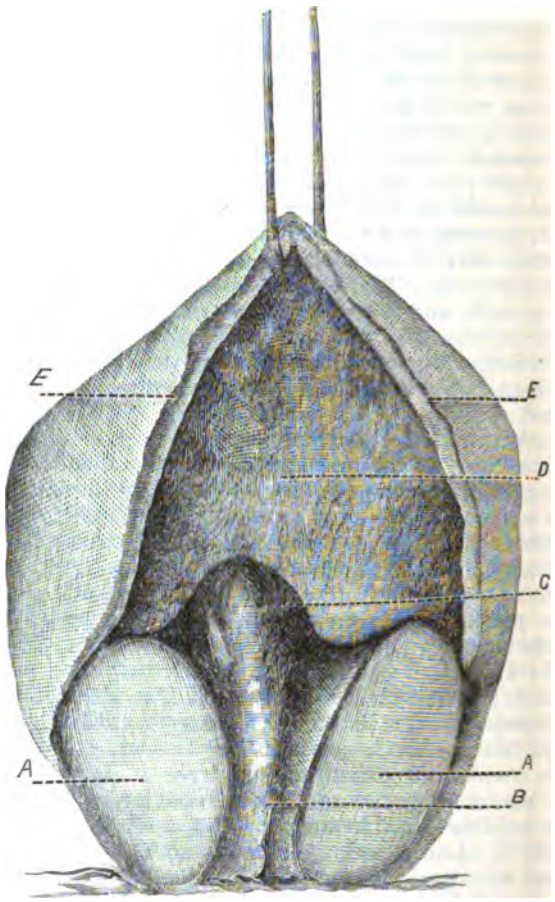

FIG. 2.—Bladder removed from the Body, and suspended by a Cord, the Upper Wall of the Bladder and Superior Wall of the Prostate being opened. *A*, the upper lobe of the prostate divided in the centre; *B*, the urethra opened from above; *C*, the lower lobe of the prostate projecting into the cavity of the bladder; *D*, the cavity of the bladder; *E*, the divided bladder-wall.

represents the cavity of the bladder as seen from above, the superior lobe of the prostate being divided. The lower lobe was of such a size and shape that any contraction of the bladder caused this to act as a valve, covering the urethral opening, and thus preventing the escape of urine. It was this enlarged lobe that prevented the escape of urine through the wound after operation, and rendered necessary continued catheterization.

The condition of the interior of the bladder had doubtless been greatly improved by the removal of the stone and subsequent washing. It was behind and below this projecting lobe of the prostate that the calculus had been firmly held, so that it could not be removed by the lithotrite. The vesiculæ seminales and vasa deferentia on either side of the base of the bladder were enlarged and indurated, and on opening the right it was found to be made up of a cheesy mass having a characteristic tubercular appearance.

The lungs were found on section to be pervaded throughout all their substance with miliary tubercles, so that there remained no healthy tissue whatever. The left pleural cavity was wholly obliterated, the lung being closely adherent to the costal pleura throughout. There was no remaining cavity containing pleuritic fluid. This had disappeared totally. The autopsy disclosed nothing further abnormal.

The following interpretation of the case is plausible and would seem satisfactory: The patient, suffering from

calculus, developed inflammation of the bladder, or the reverse might be claimed, that, having an enlarged prostate gland, he developed cystitis and calculus, the latter becoming firmly encysted behind the prostate. Of this there remains no doubt in anyone's mind, since the stone was always in the same place, it could not be dislodged, and once, when slightly caught by the lithotrite, in attempting to lift it from its position, with greatest care, it slipped from my grasp and retained its old position. Besides, though the beak of the lithotrite could be made to slip over the upper surface of the stone, firm pressure downward did not enable me to grasp it.

The inflammatory condition of the bladder produced inflammation of the vesiculæ seminales. Since the right side was the one most affected, and its efferent duct was not interfered with by the operation of lithotomy, it would seem improbable that the condition of the vesiculæ seminales was dependent upon the operation. The inflammation, being tubercular, infected secondarily the lung. The first manifestation of this was the large effusion into the left pleural cavity. The gradual development of tuberculosis after aspiration produced the quickened respiration, which sounded jerky and irregular on auscultation, also the irregular fever, increasing weakness, and finally death.

The teaching of the case with regard to the treatment would seem to be:

First.—That in case of encysted stones crushing is impossible and lithotomy becomes necessary.

Second.—That where there is any question of the urine discharging through the wound a catheter should be left permanently in the urethra.

Third.—The propriety of cutting off with a pair of curved scissors the lower projecting lobe of the prostate, that it might not subsequently prevent micturition and render necessary the constant use of a catheter. I have never seen this operation performed, nor seen it reported in the journals, but am told it has been performed with great success and relief.

With regard to tuberculosis this would seem to be another illustration of the fact that a local tubercular deposit might, after a varying time, become a source of secondary infection and consequent miliary tuberculosis. It would show also an exception to the supposed general rule that pleuritic effusion tinged with blood is due to malignant disease, popularly so-called. It would also show the insidious manner in which miliary tuberculosis may develop, and the difficulty with which it is diagnosticated.

THE SUCCESS OF NON-RESTRAINT IN THE TREATMENT OF THE INSANE.—Dr. William E. Brandt, assistant physician of the Indiana Hospital for the Insane, Indianapolis, writes: "In your recent editorial on 'The Success of Non-restraint in the Treatment of the Insane,' you fail to include among the non-restraint asylums of the United States, the Indiana Hospital for the Insane. This institution, under the able superintendency of Dr. William B. Fletcher, has been added to the rapidly increasing number of non-restraint hospitals—and I think Indiana should have full credit for this humanitarian act of reformation. The Indiana Hospital for the Insane, with an average of 1,012 patients, completely abandoned the restraint method of treatment December 25, 1883. By so doing there has been a marked improvement in the mental and physical condition of the most violent and destructive patients. Chemical restraints have also been reduced two-thirds. Accidents and injuries are much lessened, and the number of attendants in the department for women has been considerably reduced. The use of alcoholic stimulants has been almost entirely abandoned. The general deportment and morale of the attendants has greatly improved, and last, but not least, the expenses of the Hospital have been greatly decreased."

PREDISPOSITION A FACTOR OF EQUAL VALUE WITH THE BACILLUS TUBERCULOSIS IN THE DEVELOPMENT OF CONSUMPTION OF THE LUNGS AND AIR-PASSAGES.

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IF the investigations which have been conducted with so much intelligence and energy since Professor Koch's announcement of the discovery of the bacillus tuberculosis have not actually established its agency as an essential factor in the development of consumption of the lungs and air-passages, they have led, at least, to a more rational and perspicuous comprehension of the pathological conditions involved in tuberculosis. Such being the case, the duty would seem to be imperative upon all of us to aid, with our approval, at least, the efforts that able and self-sacrificing microscopists are making in behalf of the profession, both in this country and in Europe, if we can contribute nothing more. Entertaining these views, I feel quite well satisfied that, though much has been accomplished by the intelligent use of the microscope already, further efforts will, while dispelling much that is enveloped in doubt or hypothesis in our present ideas of the origin of diseases, establish a truer and better system of inductive reasoning in regard to what is known or thought to be understood now by the profession generally. And if such investigations should lead to the discovery of the fact that *all* the diseases to which animated nature is liable or exposed have their origin in certain germs or micro-organisms that exist in the air or water of the external world, except those caused or produced by traumatisms, the result of mechanical or chemical forces, it is easy to see that a great revolution in our therapeusis must take place at a not distant period of time. But whether Koch and his followers have actually found or discovered the true bacillus tuberculosis or not, the announcement has called into the field of investigation some of the most industrious and able thinkers in our science, and the work they have already done seems to be an earnest of other and more enduring fruits to the profession than was ever known before. Already some new facts are being analyzed and systematized in a way that would have astonished us, and those who preceded us, a quarter of a century ago, with the amount and value of the knowledge they have imparted to us in our daily intercourse with diseases. As far as can be gleaned from the medical periodical literature of the present time, it would seem that the malady—tuberculosis—which is annually dragging so many of the young and gifted of our race to untimely graves is brought into activity through the agency of germs or organisms from without the body. It is not deemed necessary, while making this statement, to attempt to enter the arena of controversy, or to espouse with zeal any one of the theories concerning the essential nature or pathology of consumption, or whether a micro-organism having the ability to develop that disease in the lungs or elsewhere has been made manifest to our visual organs thus far. But I purpose, with your permission, to re-present for the consideration of the profession, some practical facts to which I had the honor to call attention a few months ago. It may be safely said in the beginning that a correct knowledge of consumption is of pre-eminent importance to the physician, now that all the races and conditions of the *genus homo* are more or less exposed to its ravages. I purpose to furnish some reasons, at a future time, why the mulatto, and even the negro, suffer from pulmonary consumption now, though the latter was thought to be entirely exempt from it until within the last few decades. If the proposition already announced is true, viz., that all the diseases from which mankind suffer, except those of traumatic origin, are due to the presence of germs, bacilli, or micro-organisms existing or floating in the air or water—and I am quite satisfied that such is the fact

—we have a sure, but probably not fully appreciated, at present, foundation upon which to begin the exploration of all of them, and channels thus opened through which to proceed to the *Ultima Thule* of scientific investigation if we will. Now, should *heredity* be admitted as a factor, and at its proper value in our studies of cause and effect in such investigations, we will find our deductions and conclusions as to the origin and development of diseases rendered much less difficult of accomplishment. All intelligent persons, lay as well as professional, observe the resemblance to a parent, as seen in the *tout ensemble* of features, in the offspring. And in some instances a single feature is quite sufficient to impress one with such a resemblance to a progenitor, or an ancestor for two or three generations back, as in the shape or development of the nose, mouth, etc. A case in point may be seen in the thick lips in an imperial house of Europe. Again, supernumerary fingers and toes have been known to occur in a family for two or three generations. These statements need no argument nor further illustration for their confirmation, and they should therefore afford reasonable assurance, even if the fact had not been demonstrated in some instances under the scalpel, that peculiarity in the form and structure in the internal organs and tissues are of equal hereditary transmission from generation to generation.

All medical practitioners of much experience know that a predisposition to certain diseases is to be found in almost every community, and accoucheurs are well aware of the fact that peculiarities in the shape and form of the pelvis and genital organs of females are transmitted from mother to daughter in many instances; and even that the physiological action of the uterus will be conspicuously marked in certain instances for several generations. If we should add to these hereditary transmissions, as I feel sure that we ought to do, a sthenic or an asthenic condition of the body, as of undoubtedly the same origin, in many cases at least, it will be found that too much emphasis has not been given to this point in the present communication to THE RECORD.

Should the conciseness attempted in the foregoing sentences give rise to seeming ambiguity upon any of the points introduced, it will readily disappear when the two leading factors adverted to in the early part of this article, viz., the parasite or germ, and heredity, are properly considered in the development of consumption and its consequences.

The soil is prepared, so to speak, hereditarily for the reception and action of the germs ere they find a nidus or lodgement in the tissues of the respiratory apparatus, or elsewhere.

Being thus brought into juxtaposition, or contact, with each other, the seed finds a genial soil, and tuberculosis, or consumption, is the outcome. It would seem to be, therefore, logically certain, though we should not be able to demonstrate the fact with mathematical accuracy and precision, that if the bacillus tuberculosis has been really discovered, we have in the two above-named factors the means of clearing away the mists that have heretofore enveloped the pathology of consumption, and thus opened up to us a rational and correct basis for the employment of therapeutic agents in the treatment of that much-dreaded scourge of our race. And if we should now add to what has been said already the fact that certain parasites and germs elect certain tissues and parts of the body or organism for their development and abode, and cannot be induced, in some instances at least, to trespass much, if any distance, beyond the preferred locality, or that best suited for their operations, it may be readily understood why certain families are more greatly afflicted with consumption in particular climates and places than others are who have no hereditary or acquired preparation for the action of the germs of that disease, abounding in such localities, and may remain thus the neighbors of the unfortunate ones for generations, entirely free from its ravages. What may be thus true of the action of the bacillus that produces consumption of the lungs and air-passages, is equally true, I feel satisfied, in regard to the germs of other diseases under other circumstances. Nearly thirty years ago I stated, in a published article on yellow fever, and demonstrated, to my own satisfaction at least, by proofs that must stand the test of experience in the future, that it owed its origin to the action of certain germs upon the blood and other organs of the system (*vide* Philadelphia *Medical Times*, vol. iii., pages 726–739). And from observation and experience with almost every form of disease to which humanity is liable from that time until now, I feel assured that *all* diseases, except those that result from mechanical injury, owe their origin to micro-organisms, germs, or bacilli, which exist in the air, or in the water we consume, or which result from actual contact with contagious or infectious matter! I will not trespass upon the attention of your readers but a very little further, however inviting the subject might be to me personally to continue its discussion, and will remark, first, that *predisposition*, either hereditary or acquired, seems to be essentially necessary as a "condition precedent" to the development of consumption or tuberculosis, and that a certain germ or micro-organism, probably the bacillus tuberculosis of Koch, always finds a nidus, or developing soil, in the predisposed surface to which it comes into contact. From what appears above it might be readily inferred that I look forward to a time in the not distant future when we may confidently expect to treat consumption successfully, as well as almost all other forms of disease, upon strictly scientific principles, and when contingency and empiricism may be safely and properly eliminated from our technical vocabulary.

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Progress of Medical Science.

ELENINE AS A REMEDY FOR COUGHS.—Dr. Valenzuola has recently met with considerable success in the treatment of troublesome coughs by elenine given in pill form or in tincture (*El Siglo Medico*). He employed it in bronchitis and phthisis in doses of one-eighth grain in pill ten times a day, or five drops of the tincture three times a day. In every case he states that the cough was moderated, the expectoration was lessened in quantity and became mucous, and the thoracic pains were greatly mitigated. The drug also increases the appetite and improves digestion. It is possessed of no narcotic properties. Elenine is not a new remedy, for it was known, though but little esteemed, by our fathers. Further trials with this drug will have to be made before the indications for its use shall be sufficiently clear and definite to establish its claims as a reliable remedy for coughs.

USE OF PILOCARPINE IN PLEURISY AND PERITONITIS.—An experience of several years induces De Dominicis to believe that great benefit may be obtained, not only in pleurisy and pleuro-pneumonia, but also in peritonitis, from the use of pilocarpine, rapid reabsorption of the exudation, even when copious, taking place. The author gives shortly the history of some of his cases of both chronic and acute peritonitis, in which the administration of jaborandi or of pilocarpine (by hypodermic injection) was followed by rapid recovery. When the effect was not obtained, it was due to some special complication of the disease. In the course of these experiments in treatment, the author made careful observations on the mode of action of the drug, from which he arrives at the following conclusions: 1. The systolic force of the heart, except during the stage of sweating, is increased rather than lessened, unless the nutrition of the myocardium is interfered with. 2. The effects on the sudoriparous glands endure after the repeated administration of the drug. 3. Caffein and quinine moderate the action of pilocarpine.

Renal Syphilis.—In an inaugural thesis by Dr. Negel, quoted in the *Journal of Cutaneous and Venereal Diseases*, May, 1884, we find the following *résumé* on the subject of renal syphilis: 1. Syphilis, in any of its stages, may affect the kidneys; the same is true of hereditary syphilis, in infantile or adult life. 2. Certain renal complications are precocious, others late. The first, only studied within the last few years, manifest themselves in the first months after infection with all the characteristics of the nephritis of the infectious fevers; when the *début* of the chancre dates back several months, the clinical history of the renal affection is similar to cases of glomerulo-nephritis which are seen in scarlatina, for example. 3. Syphilitic nephritides occurring in the secondary stage are always grave accidents; nevertheless they are curable, not only in the acquired syphilis of adults, but also in the hereditary syphilis of childhood. Their gravity appears to bear a certain relation to the age of the syphilis and the time which the patients have been subjected to specific treatment. 4. Albuminuria being the principal symptom in the examination of these renal accidents, we understand how specific nephritis may pass from view before the other secondary accidents of syphilis. 5. When œdema appears and is sufficiently marked to attract the attention of the patient and physician, another cause is generally assigned to it, so that syphilis is readily eliminated from the diagnosis. 6. These albuminuric patients being improved under the influence of specific treatment, and taking no further care of themselves after the secondary accidents have disappeared, the renal lesion may slowly pursue its course, and when, later, the patient comes under the care of the physician, it is more than probable that his suspicions will be directed to another cause than syphilis, especially since it so often happens that the patient declines to confess to a disease which he has every interest in concealing. It is necessary, then, when a patient comes under the physician's care with all the symptoms of an acute or chronic nephritis and the etiology generally adopted proves doubtful, to think of syphilis and institute a specific treatment. If the patient bears any traces of syphilis (either upon the organs appreciable to view, or upon the viscera, nervous centres, liver, etc.), these accidents only confirm the diagnosis of a syphilitic renal lesion. 7. Precocious syphilitic albuminuria is generally persistent and of quite long duration. There remains a question of extreme importance to be resolved: what will be the outcome, in a time more or less remote, of the secondary syphilitic nephritides considered as cured? The presumption is probable that a certain number of cases of Bright's disease may be the recurrence or latent termination of this primary disease of the kidneys (precocious syphilitic nephritis). 8. Specific treatment gives the same results as in the other precocious accidents of syphilis. Milk diet should be regarded as a simple adjuvant, but not recognized as a necessity. 9. Renal complications occurring in an advanced stage of syphilis (tertiary and quaternary accidents) exist, presenting sometimes the character of acute or chronic Bright's disease, sometimes the characters of amyloid degeneration; in the last case, contrary to the opinion generally held, we think with Wagner that the amyloid kidney is a consequence of syphilis, and not of a concomitant suppuration or of a mercurial or venereal cachexia, for cases occur in which there is no suppuration, and the patients, far from being cachectic, are on the contrary quite vigorous. 10. These specific renal alterations are more grave than those which appear in the first years of syphilis. Nevertheless they may be benefited by specific treatment, the sole condition being that the renal lesion be not too far advanced; for, as in the case of the nerve-centres, we cannot rebuild the tissues. 11. Gumma of the kidneys, although quite rare, exist; but no pathognomonic symptom reveals their presence during the life of the patient. It is probable that anti-syphilitic treatment would have the same results as in gumma of other viscera.

The Hypodermic Administration of Calomel in Syphilis.—Dr. Louis Jullien strongly advocates the above treatment in the *Annales de Dermatologie et de Syphiligraphie*, February 25, 1884. The author refers the suggestion of this method to Scareenzio, of Pavia, and its further development to George Smirnoff, of Helsingfors, Finland. The proportions of the fluid used for injections are as follows: calomel, 10 to 15 ctgr.; gum arabic, powdered, 5 ctgr.; distilled water, 1 grm. The ordinary hypodermic syringe of Pravaz is employed, but the needle must be at least three centimetres long. The author concludes that the method in question presents notable advantages over other modes of administration of mercurials, for the following reasons: Four injections of 10 ctgr. each, made two by two, on the buttock, at intervals of three weeks, suffice for the cure of an ordinary case of syphilis. Suppuration rarely follows the injections, particularly if these be made on the buttock. The method is equally applicable to the treatment of syphilis in all its stages, and is well tolerated even by very young children.

Malignant Tumors in Children.—These tumors are, according to Picot, of not infrequent occurrence, and are most frequent in the first year of life. Congenital tumors affect, chiefly, the kidneys and the genitals, but tumors of the eyes and bones predominate later. After the seventh year the frequency of the tumors markedly diminishes. Boys are more often attacked. Those organs which are the favorite seat of malignant tumors in adult life are seldom attacked in childhood. The kidneys and the eye are involved with great frequency. Sarcomata and encephaloid carcinomata are the usual forms of malignant neoplasmata found in children. The cachexia so characteristic in adults and the peculiar color of the face are seldom seen. The course is rapid. Adjoining villages are often endemically affected. Recurrence is frequent. The treatment is excision, as some permanent cures have been observed.—*Deutsche Medizinal Zeitung*, March 3, 1884.

Colotomy in Vesico-Rectal Fistulæ.—Dr. Duménil, writing in the *Revue de Chirurgie* for April, 1884, complains that the French, though active in popularizing and perfecting the technique of colotomy, have hitherto made very restricted use of the operation. And he urges its employment in other than cases of rectal obstruction, particularly in vesico-intestinal fistulæ. Although the operation in these cases has thus far been only palliative in its results, it is nevertheless allowable to hope that it may, in favorable cases, either alone or in connection with other means, lead to a radical cure of this distressing condition.

Failure of Jequirity in Granular Conjunctivitis.—An original article on this subject by Drs. Galezowski and Parisotti appeared in the *Recueil d'Ophthalmologie* for January, 1884. Four cases treated with jequirity are adduced as a basis for the conclusions reached by the authors of the paper, of which the following is a brief summary: The statistics thus far accumulated go to show that the so-called cures of granulations effected by jequirity consist only in a temporary amelioration of the symptoms, and that the disease reappears in its original severity, if not in a more aggravated form, soon after the cessation of the treatment. Some experimenters report successful cures with the drug in question, but the majority, among whom are Drs. Osio and Fortunati, of Rome, have found the remedy either inefficacious or even dangerous on account of the intense inflammation it excites. In three out of the four cases cited by Drs. Galezowski and Parisotti the granulations returned, with their original intensity, about two months after the application of the remedy. Pannus is favorably influenced by jequirity, but this result is obtained by the employment of any intensely irritating substance, and the action of jequirity in this particular is also merely temporary.

BENZOATE OF SODA IN SUMMER DIARRHŒA. — Regarding summer diarrhœa as a zymotic disease due to the presence of a special microbe, Dr. Guaita was led to test the efficacy of benzoate of soda as a remedial agent. He employed this substance alone in upward of fifty cases occurring in children from six months to two years of age. In those cases in which the disease had existed for from twenty-four to thirty hours a cure was obtained in four to eight days, but where treatment was not begun until one or two weeks after the inception of the diarrhœa, an average of twenty-one days was required to effect a cure. There were no deaths. After a purgative (calomel or jalap) the author administered a drachm to a drachm and a half of benzoate of soda in three ounces of water each day for two days. On the third day a laxative (magnesia or manna) was given, and then the administration of the benzoate was resumed. Within forty-eight hours an improvement was noticeable, the stools were less offensive and the vomiting ceased. During the treatment the giving of food was forbidden, only a few spoonfuls of wine being allowed. Nursing children were permitted to take the breast four times a day, but to older children milk was a forbidden article.

THE CAUSE OF DEATH AFTER SEVERE BURNS.—Various theories have been advanced at different times to account for the occurrence of death following burns of moderate degree though of considerable extent. Dupuytren thought that immediate death was often caused by excessive pain, the irritation of the nerve terminations inducing a paralysis of the centres. Others have regarded it as due to an arrest of the cutaneous perspiration consequent upon the destruction of a large extent of integument. Others, again, have maintained the so-called "mechanical hypothesis," according to which there is a dilatation of the cutaneous capillaries and a consequent loss of heat, leading to vaso-motor paralysis which extends even to the great vessels and the heart itself.

Some experiments undertaken by Sonnenburg, a few years ago, would seem to disprove the correctness of the two last-mentioned theories, for he showed that instead of the assumed loss of heat there is an increased temperature, even during the period of capillary dilatation, and further, that this dilatation was rapidly succeeded by a contraction of the vessels when the burning was long continued or of great intensity. And in the later stages, when the temperature of the skin was lowered, it was above the norm in the interior of the body. Regarding the theory of impeded perspiration he asserted that it was in no way proven that any such impediment occurred in superficial burns. On the contrary, the fact that substances injected into the vessels were found in the exudation on the burned parts would go to prove that the discharge of excrementitious matters from the blood was not interfered with. And again, animals which had been covered with varnish or pitch did not die, provided they were kept well wrapped up so as to prevent loss of heat. His own views were expressed in what he called the "reflex hypothesis," which is practically that advanced by Dupuytren in the early part of this century, namely, that death results from an overpowering action upon the nervous centres from peripheral irritation.

In an examination of the blood taken from several persons dying of extensive burns, Tappeiner found a notable diminution of its watery constituents, with an increase of hæmoglobin and red corpuscles. The state of the blood was very like that existing in persons dead of cholera, and a further resemblance in the two conditions was found in the presence of urea in considerable amount in the muscles and other tissues. He found no changes in the red corpuscles. Another observer, L. von Lesser, was led by his investigations to results differing from both Sonnenburg and Tappeiner. He found great changes in the blood, or rather in the red corpuscles. Besides the globules of a round outline, though slightly swollen, were numerous star-shaped and crenated cells and rounded or club-shaped pigment bodies. The serum was deeply stained with hæmoglobin. This escape of the coloring matter of the blood into the serum occurred very soon after the burn was received, and ceased in a short time. But after the corpuscles had ceased to yield up their hæmoglobin the latter began to be excreted from the body, chiefly through the kidneys. The cause of death, however, according to the last-named author, is not to be found in the presence of hæmoglobin in the blood, nor in any renal irritation caused by its excretion, nor in the increased amount of fibrin ferment or of potassium salts, but rather in the changes undergone by the red corpuscles. Von Lesser found a large number of these which had lost so much of their hæmoglobin as to be completely decolorized. On account of this loss of color they were with difficulty distinguished under the microscope—a sufficient explanation, possibly, for the fact that they were not discovered before. These colorless corpuscles, he asserted, were wholly inactive and useless in respiration or in the process of nutrition, and thus death was caused by an acute anæmia.

The latest, and certainly the most ingenious theory is that of Catiano, of Berlin (*Schmidt's Jahrbücher*, No. 10, 1883). The symptoms following upon extensive burns of the integument, as well as the changes found post-mortem, all point to an affection of the cerebro-spinal centres, with disturbance especially of the medulla oblongata. The fact that the danger of a burn depends upon its extent rather than upon its intensity, led him to see whether there was not some substance already present on the skin which, by rapid heating, might become changed into a poison and thus give rise to these disturbances by being absorbed. The sweat, he says, is normally of acid reaction by reason of the formic acid which it contains, but this is neutralized on the skin by ammonia, forming the very soluble formate of ammonium, NH_4CHO_2. But when this salt is quickly heated it gives up its water and becomes converted into hydrocyanic acid, $NH_4CHO_2 = 2(H_2O) + NCH$. In order to give probability to this theory it is necessary to show that the symptoms following extensive burns or scalds are the same as those of prussic-acid poisoning, and also to demonstrate the presence of the acid in the blood. The first point is easily determined, for the symptoms of hydrocyanic-acid poisoning are similar to those following burns. We find the anxiety, dyspnœa, muscular weakness, headache, nausea, small pulse, and finally coma. The heart continues to pulsate after respiration has ceased. Examination after death reveals nothing beyond the very red fluid blood and intense intestinal catarrh. The second point is as yet undetermined. Catiano was not able to discover any prussic acid in the blood. But this negative result can hardly be held as conclusive, he thinks, since the toxic dose is so minute and the poison itself so easily changed into other substances. Yet he believes that he has found evidences of its presence in the secondary changes produced in other organs—nephritis, embolism, intestinal ulcers, etc. As regards the therapeutics of burns, he only recommends thorough douching with cold water in order to stimulate the nervous centres and to promote resorption.

NEPHRITIS A SEQUELA OF MUMPS.—At the meeting of the Verein für Innere Medizin, held at Berlin, February 11, 1884, Dr. Croner reported an unusual case of bilateral parotiditis which was followed, after an interval of ten days, by acute hemorrhagic nephritis with all its characteristic symptoms. Simultaneously with the nephritis there occurred severe inflammation of the lymphatic glands at the angle of the jaw, on either side, together with inflammation of the neighboring connective tissue. The society was inclined to admit an etiological relation between the mumps and the acute nephritis, and to regard the latter as a local inflammation, analogous to the orchitis which sometimes complicates parotiditis.—*Deutsche Medizinal Zeitung*, February 25, 1884.

Psychoses from the Use of Chloral Hydrate.—Dr. Kirn reports the case of a man, thirty-five years of age, who was attacked with asthma five years since. At first the paroxysms recurred every eight or ten days. Two years ago a mixture of chloral hydrate 6.0, and muriate of morphia 0.05 was prescribed for him. He consumed one-half of this quantity in about a week. In December, 1882, the attacks having become diurnal, the patient took, daily, about 8.0 of chloral and 0.06 of morphia. Symptoms of chronic chloral-poisoning having appeared, the drug was first partly and then wholly withdrawn, small doses of morphia being administered hypodermically as a substitute. Hallucinations of hearing at once occurred, but were only present in the daytime. The patient lost 20 kilos. in weight, and suffered from violent diarrhœa, vesical tenesmus, and neuralgic pains. This condition persisted about four weeks, when the symptoms of chloral-poisoning disappeared, and the asthma, which had been latent for this period, returned in its former severity. Dr. Kirn explains this psychosis by the assumption that vascular paralysis is occasioned in the central nervous system by chloral, and that the resulting venous congestion and arterial anæmia produce trophic disturbances in the brain.—*Centralblatt für Klinische Medicin*, January 26, 1884.

Corrosive Sublimate in Granular Conjunctivitis.—In an original paper upon the use of corrosive sublimate in trachoma (*Recueil d'Ophthalmologie*, January, 1884), Dr. Dujardin, of Lille, gives the results of his experience with this remedy during a period of several months in a very large number of cases. Finding that the solution proposed by Sattler at the Heidelberg Congress of 1883, viz., $\frac{1}{20000}$, as well as the $\frac{1}{10000}$ solution advocated by Dr. Poerchel, of Turin, were too weak to produce any decidedly caustic or astringent action upon the granulation tissue, Dr. Dujardin adopted a solution prepared according to the following formula: Corrosive sublimate, 1 grm.; alcohol, 10 grm.; distilled water, 240 grm. The remedy is applied, by means of a camel's-hair brush, over the entire surface of the everted lid two or three times a week, and it is not necessary to subsequently neutralize the caustic with water. The author does not decide the question as to the *modus operandi* of the remedy, but suggests that the disinfectant properties of the sublimate may, by destroying micro-organisms, materially assist the astringent action of the drug in effecting a cure. In recent granulations Dr. Dujardin still prefers the nitrate of silver, and reserves the sublimate for cases of longer standing and for those complicated by pannus.

Treatment of Ascites Symptomatic of Hepatic Disease.—The permanent cure of ascites arising from disease of the liver, with obstruction to the portal circulation, is a thing often attempted and devoutly hoped for, but seldom, in fact, accomplished. Purgatives and diuretics have been freely used, and diaphoresis has had many advocates, but in the end resort is usually had to paracentesis. Richter has reported two cases in which a cure of this troublesome symptom was obtained by pilocarpine. The first patient had already suffered paracentesis five times, but each time the fluid reaccumulated more rapidly than before. After the sixth operation pilocarpine was exhibited in doses of one-fifth grain in an ounce of whiskey twice a day. Six days of this treatment sufficed to effect a cure, and the patient was able to leave hospital and resume his work. Five months later there was no sign of a return of the ascites. In the second case three punctures were made, followed each time by the administration of one-third to one-half of a grain of pilocarpine per diem, the result being successful. As an offset to these favorable cases Dr. de Luca states, in the *Rivista Clinica e Terapeutica* for March, 1884, that he had observed a trial of pilocarpine by the hypodermic method made in two cases without any apparent result. It would seem, then, that we have in pilocarpine a remedy of value in some cases, but unreliable in others. And it would, perhaps, not be amiss to make trial of the drug, where no contra-indications are present, after the bulk of the fluid has been removed by paracentesis, and possibly, after a more thorough test, it may be found to be of real utility.

Subcutaneous Vaccination.—In an article in the *Bulletin Général de Thérapeutique* of April 30, 1884, Dr. Bourgeois recommends the subcutaneous injection of vaccine virus. He claims that by this method the number of successful vaccinations is, at least, as great as by the ordinary plan, while the pain of the operation is reduced to a minimum, and the inconvenience sometimes occasioned by a rather profuse oozing of blood is obviated. The procedure is also saving of time when a number of persons are to be vaccinated. He employs a needle of medium calibre, attached to a small rubber bulb, or preferably to a metallic box resembling an aneroid barometer. Two or three drops of virus are used for each injection. The caution is to be observed not to relax the pressure on the bulb until the needle has been withdrawn from the tissues. Two needles may be used when economy of time is an object, one being cleaned by an assistant while the other is in use.

The Bichloride of Mercury in Fetid Bronchitis.—The universally acknowledged power of corrosive sublimate to arrest decomposition and destroy bacterial life would naturally suggest its use in purulent inflammations of mucous membranes so situated as to permit of the local application of the drug. According to Keyes, as we noticed in a recent issue, it is unsuited to the treatment of gonorrhœa, owing to its irritant effects upon the urethra, even when applied in very mild solution; but this is no argument against its utility in inflammations of other less sensitive mucous membranes. Korányi (*Il Movimento*, March 14, 1884) reported a case of pleurisy and mitral regurgitation, complicated with fetid bronchitis, in which inhalations of the bichloride were used with marked effect. The patient had previously used inhalations of phenic acid and turpentine continuously for four weeks with negative results. He was then instructed to inhale about half an ounce morning and evening of a solution of corrosive sublimate, 1 part to 10,000. At the end of six days he was apyretic, coughed but little, and the expectoration became much less offensive. A few more inhalations sufficed to render the bronchial secretion mucous in character and inodorous. It seems not unreasonable to ascribe the amelioration of the symptoms to the remedy employed, and if further trials of the drug in similar cases are equally successful we shall have gained a valuable point in the treatment of this troublesome affection.

A Mode of Treatment for Paronychia.—It is pretty generally submitted that the evil results, as regards the usefulness of the finger, so often seen to follow from a felon, are due to neglect in the early stages, and might be averted by prompt and active treatment. The management at first is usually domestic, and consists in the application of poultices or ointments of various sorts. But the inflammation goes on, and finally, when medical advice is sought, it is frequently impossible to prevent necrosis of one or more of the phalanges, and at best, the last joint of the finger often remains stiff. In these cases Professor von Nussbaum advises an incision to be made down to the bone on one or the other lateral aspect of the phalanx, and prolonged across the joint to the next segment of the finger. The patient should be placed under an anæsthetic, and the cutting should be continued until it is certain that the pus is entirely evacuated. The incision is made at the side of the finger instead of on the volar surface, so as to avoid wounding the flexor tendons. The cicatrix is also less apt to give annoyance when it is on the lateral aspect of the member. The observance of antiseptic precautions during the operation is enjoined.

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OUR PUBLIC HEALTH SERVICE.

WE are in receipt of letters from officers of the Marine Hospital Service requesting that publicity be given to the following statements in regard to the bill before the Public Health Committee of the House of Representatives, entitled "A Bill to Protect the Public Health," and which has been the subject of comment in these columns. 1. "The bill in question was not under discussion as stated, but was simply introduced as a substitute to House Bill 2,785 (which was under discussion)." 2. "The grounds taken by those opposing the passage of House Bill 2,785 were that no further legislation was needed than that already existing under the act appropriating $100,000 to be used at the discretion of the President, and to establish quarantines at points of danger." 3. "That if Congress in its wisdom thought further legislation was necessary, then to substitute for the bill under discussion House Bill 5,603, 'A Bill to Protect the Public Health.'" 4. "That no efforts whatever were made, or have since been made, to obtain a favorable action upon this United States Board of Health bill." 5. "That it was merely introduced to kill the bill then under discussion."

These explanations throw new light on the merits of the controversy, and on the motives of those engaged in it. On the one hand the National Board of Health is endeavoring to recover the powers and duties which it lost by the lapse of the law of June 2, 1879, which had four years to run, and expired June 2, 1883. House Bill 2,785, above referred to, is designed to accomplish that object. This bill is opposed by the Marine Hospital Service, one branch of the Board, on the ground that an annual appropriation of an epidemic fund of $100,000, to be used at the discretion of the President, renders further legislation unnecessary. This opinion is possibly based on the fact that, by the action of the Secretary of the Treasury, this fund, which was formerly among the appropriations of the Board of Health, is now expended at the sole discretion of the chief officer of the Marine Hospital Service, with the approval of the Secretary. If, however, Congress should deem legislation necessary, then House Bill 5,603, prepared by the Marine Hospital Service, and which creates the United States Board of Health, is to be substituted for House Bill 2,785, and thus not only "kill" that bill, but also the National Board of Health.

Thus it appears that two strongly antagonizing forces are struggling for supremacy in the field of national legislation, viz.: The National Board of Health, to recover the position which it lost by the expiration of the law of June 2, 1879; and the Marine Hospital Service, to supplant the National Board and assume its most important functions. As the latter organization has already secured the control and expenditure of the epidemic fund, formerly under the direction of the National Board, by the action of the Secretary of the Treasury, its officers strenuously oppose all further legislation, being satisfied with the vantage-ground which it has gained. We have the legislative methods by which the result is to be accomplished fully explained, and we are assured that they will certainly succeed. In view of these statements we feel it our duty again to warn State and local boards of health that our system of public health service, which was perfected by the organization of the National Board of Health, is in peril. It is for these boards to decide whether the complex questions which grow out of the co-operation of the general Government with the States, in the control and suppression of epidemic diseases, shall be determined by a board of representative men or by a single bureau officer.

A careful review of all the facts confirms us in our previously expressed opinion, that all the sanitary duties and powers of the general Government should, as in the States, be conferred upon a Board of Health; and that this Board should be composed in part of men representing the great sanitary districts of the United States, and in part of men representing departments of the Government at the capital. In other words, it should be a representative and deliberative body. It may yet be a question if the Board should not have a representative from each State Board of Health. It is certain that the various sections of the country are not too fully represented in the present Board, but as now organized there is no doubt that Congress adopted the best plan of an efficient central health authority at that time or since proposed. And the work of the present Board proves the great value and importance of a membership representing sections of the country where the most virulent and destructive epidemics are liable to prevail. The ability of that Board to organize adequate measures against yellow fever was due to the two members who, in different sections of the South, have been conspicuous by their labors and self-sacrifices during many epidemics of that scourge. Indeed, all experience, at home and abroad, teaches that the most efficient and reliable board of health must have a membership which represents all of the diversified interests comprised in the term public health. The act of the Secretary of the Treasury transferring the epidemic fund of $100,000 from the care of the Board of Health to that of the chief officer of the Marine Hospital Service, to be by him expended at his discretion, was unwise. Whatever may be his ability and his qualifications for the duties which the expenditure of this fund imposed; the principle for which we contend was violated, viz.: that the proper administration of public health affairs requires the deliberation of a board. Such a board then existed, and was invested with all the power necessary to a wise expenditure of that fund.

Fully impressed with the correctness of these views we shall encourage every legitimate effort which is made to maintain a representative National Board of Health.

MOBILITY OF THE BRAIN.

THE paper recently read before the Académie de Médecine by M. Luys cannot fail to be of great interest to the physiologist.

The cerebral mass, he says, enclosed in the cranial cavity is surrounded by an empty space which permits its displacement in different attitudes of the body, and enables it to obey the laws of gravity. When a man is placed in an inverted position, the forehead being on a horizontal plane, the cerebrum glides from before backward; in the vertical position it always obeys the laws of its weight, recedes from the cranial vault, and leaves an unoccupied space at the vault. In a position of lateral decubitus the lower lobe sinks down and the upper presses upon it, slightly displacing the falx cerebri. In this position the vacant space is between the temporal lobes and the skull. Luys' experiments enable him to state that the gliding movement of the cerebral mass takes place in an automatic manner; that this movement does not take place suddenly, and that five or six minutes are required for the displaced part to regain its normal situation.

This mobility (or locomobility, as Luys' terms it) of the brain should, from a physiological point of view, have a considerable influence in the phenomena of cerebral life. In the vertical position, the brain, in pressing upon itself, causes a certain degree of folding in the compressed parts. Hence we notice various ischæmic troubles in debilitated subjects who have been confined in bed for some length of time; and that syncopal state known as sunstroke, which often takes place during a prolonged vertical position; and the various phenomena—vertigo, titubations, loss of consciousness, etc.—which depend upon arrest of the circulation in the basal capillaries. So true is this, that the empirical remedy, horizontalizing the patient, is one which nature always employs in order that the pressure upon the capillaries may be removed and the circulation re-established.

It is very probable that this automatic displacement may have a large influence in the causation of sea-sickness. The rapid succession of tosses experienced by the cerebral mass should be expected to contribute largely to the development of that curious state of nausea and cerebral malaise; and it is well known that the horizontal position will tend to relieve it. Even during the period of diurnal activity, the head being in the erect position, the locomobility of the brain should, by reason of its keeping that organ in one position, and by the constant moving about of the body, subjecting it to a series of slight tosses or jars, cause a fatigue *sui generis* analogous to that felt by other organs. In the domain of pathology this phenomenon must necessarily play an important part. When the meninges become inflamed, thus interfering with the gliding movements of the brain, we at once see an array of very intense symptoms. Persons with cardiac affections or subject to frequent congestions of the encephalon often experience marked relief from the vertigo and other symptoms by change of position. Cerebral troubles, apoplexy, etc., are more frequent in the morning when the subjects suddenly assume the erect position. It is well known that nocturnal attacks of epilepsy may frequently be arrested by placing the sufferer in the erect position; and that nervous subjects who see disagreeable objects whilst lying down may be relieved by assuming an erect or reclining position.

At each expiratory movement there is an ebbing of the venous current toward the capillaries, so that when expiratory movements succeed each other rapidly, the cerebral mass is literally projected upward against the cranial vault. This explains the mechanism of certain cases of cephalalgia, especially that seen in infants with grave diseases. On the other hand, the concussions produced by an external cause, the repeated shocks during a long carriage ride for example, are known to cause cerebral fatigue, and often nausea. In young and healthy subjects this is not of especial moment; but in subjects of cerebral congestions, or hemorrhages, or softening, great damage may be done by a short journey, especially if the journey be rough. When these patients are compelled to travel, the distance journeyed each day should be as short as possible, and so arranged that the patient may be able to rest during the afternoon and night.

MEDICAL EXPERT TESTIMONY.

THE *North American Review*, in its June issue, contains a symposium upon the subject of expert testimony. The contributors to lucidity upon this much-vexed subject are Drs. W. W. Godding and C. L. Dana, and Messrs. Rossiter Johnson and T. O'Conor Sloan. Mr. Johnson takes the ground that the remedy for the present defects in the methods of giving expert testimony is, not to pay the experts. They should, he thinks, be compelled to furnish their services on the same conditions and at the same rate of pay with ordinary witnesses. This view is strenuously argued against by the other contributors, who anticipate possible pecuniary losses if Mr. Johnson's view were adopted. The question of the special payment of experts has been much agitated in certain States where the law now compels the doctor to furnish his professional opinions to the court for a nominal charge. The medical expert is expected to testify as to matters of opinion as well as of fact. He is expected to interpret facts in the light of his scientific knowledge and professional skill. As he is asked to furnish that special knowledge by which he earns his bread and butter, it is argued with reason that the court has no more right to demand this service of the doctor than to require a carpenter to build for it a house, or a mechanic to make for it a special tool.

The other point brought up in the symposium in question was that of the mode in which experts are called. Curiously enough, Mr. Sloan, who writes as a patent-law expert, asserts that the present course of calling experts on both sides of the case is "an admirable method of reaching the truth as regards the scientific aspects of the question at issue." This opinion is not shared by medical writers, nor is it, we believe, in harmony with the general opinion of medical jurists at least.

It is agreed that the function of the expert is to instruct and enlighten the Court without exhibiting bias toward either of the contending parties. At present the experts are all summoned for the purpose of helping, not the truth, but one side of the truth, the only safeguard

against exaggerations and errors being the cross-examination.

It can hardly be expected that expert testimony can be given candidly and satisfactorily when the experts are specially called either to help plaintiff or defendant.

The plans suggested for remedying the present evils all agree in this one point, that the Court should summon experts. Objection is made, however, to submitting the case to one or more persons, however skilful and impartial, for final settlement. This plan, which is followed in France, would settle matters too peremptorily to be satisfactory to the American mind. It would be better, therefore, that experts be appointed to whom technical and scientific questions be referred to be examined and reported upon. These experts can then be cross-examined by the counsel upon each side.

Even if no such commission of experts be established, some good might be accomplished by putting certain restrictions upon those who are summoned as medical experts. At the present the law can call upon medical students, quacks, and midwives to serve as experts. In cases of insanity this is especially unfortunate, and it is particularly in regard to this class of cases that reform in the methods of giving medical expert testimony be brought about.

FRENCH MEDICAL JOURNALS AGAIN.

In the issue of The Medical Record for November 13, 1883, appeared an editorial, entitled "French Medical Journals." We find that this has excited an amount of comment among our confrères across the water which was entirely unexpected, in view of the fact that the eyes of the French medical journalist so rarely range beyond the Parisian horizon.

The article was written for our American readers, and was intended simply to state the impression made by the perusal for a good many years of a great many French medical journals. We intended to do no injustice, and still believe that the criticism was in the main a correct one.

The piquant imbecilities of the *Moniteur de la Policlinique* only justified our comments, and call for no reply. But now *L'Union Médicale*, a journal of the highest character, has undertaken to contradict some of our assertions, and to intimate that America is too young a country to presume to do anything but bow reverently before Gallic models.

It is a most significant fact that the Old World has become sensitive to New World criticism, and perhaps implies that there is some justice in this criticism.

At any rate, *L'Union Médicale* admits at once that we have "touched some of its wounds," and it kindly says that possibly something may be learned from our suggestions.

But it immediately makes amends for this concession by uttering the following remarkable diatribe:

"Americans could hardly find models of clearness in their own country, which they admire so much; where the physicians believe themselves educators of the entire world [*sic*], where the young medical student produces 'original works' upon the nature of molecular granulations before he has studied the humerus, where science is a collection of ill-digested facts, where the subjects are entangled, where paragraphs are piled one upon another, where the length of the sentences and the indecision of the style cover with a uniform cloud shallow theories and minuscular hypotheses."

We submit that this is hardly a specimen either of good style or good taste. The question at issue is not that of the scientific or literary status of American medicine, and attacks upon it do not prove in the least that French medical journals are of a high order.

We have stated that French medical journals on the whole were provincial, that they do not keep their readers acquainted with the progress of medical science throughout the world so systematically and thoroughly as is done by some journals in England, Germany, and America. This is strictly true, and is in perfect harmony with the acknowledged peculiarities of the French character. We have stated that they lacked individuality. There are about one hundred medical journals published in Paris, and the backbone of each of them is articulated out of the same local society reports. For even the Académie de Médecine is only a local society and no better than some others. Editorials, if they exist, take a narrow range, are not very vigorous, and apparently do not command great weight.

The original articles seem to be contributed chiefly by professors and their pupils, and it strikes the cis-Atlantic reader that periodical medical literature is in the hands of a set of "rounders." We are assured, however, by *L'Union Médicale* that this is a mistake, and if so we are happy to admit it.

Our contemporaries allude to our editorial article as "anonymous," which in itself shows a curious lack of understanding of English, American, and German journalistic methods. *L'Union Médicale* also seems to think that all of our criticisms were directed to itself, when, on the contrary, we expressly said that a few, a very few of the leading French journals were nearly equal in every way to those published in other countries. But Paris publishes countless journals, and a country's journalism or literature cannot be judged exclusively by the small per cent. of what is best.

Discussion on Tuberculosis.—Dr. E. O. Shakespeare, of Philadelphia, writes: "I notice in the issue of The Record of May 10th, in the report of the discussion on tuberculosis, that I am quoted as accepting *as proven* 'that nothing but the tubercle bacillus could produce tuberculosis.' This is precisely what I do *not* regard as proven. I endorsed nearly all of Koch's claims, but denied that one, and the following are the words exactly as I read them: 'On the other hand, whilst I am not now ready to admit that by actual proof it has been demonstrated that no other agent than the tubercle bacillus can excite the tuberculous process, in the same breath I most emphatically deny that it has been satisfactorily shown that anything else is endowed with such a power.' Will you oblige me by placing me right on this question, by making this correction in your next issue."

News of the Week.

PERCENTAGES GIVEN BY INSTRUMENT-MAKERS.—It appears to be the custom among certain instrument-makers in this, and, we presume, other cities, to give the physician who sends them a patient to be fitted, a certain per cent. on the profits.

"THE COLLECTIVE INVESTIGATION RECORD."—The Collective Investigation Committee of the British Medical Association propose to publish a second number of the *Collective Investigation Record* early in July next.

A DRUGGIST'S MISTAKE.—A young lady died recently at Cherbourg in great agony after having taken an injection of aconitia prepared by a pharmacist in mistake for pilocarpine. The druggist discovered his error shortly after it was committed and ran to the lady's house to warn her, but arrived just in time to see her expire.

THE STUDY OF BACTERIA.—A laboratory for bacterial investigations has just been established in the Pathological Institute at Munich. The course of instruction will be conducted by Dr. Frobenius, one of the assistants in the institution.

SEASIDE SANITARIA IN AUSTRIA.—The Common Council of Vienna has voted, at the instance of its Sanitary Committee, to send twenty scrofulous children to a seaside hospital, and it is hoped to establish a summer institution similar to the St. John's Guild of this city.

ILLEGAL MEDICAL PRACTICE IN PARIS.—The notorious quack, known as the Zouave Jacob, was arrested in December last in Paris and condemned to sixteen days' imprisonment and to pay a fine of one hundred francs. He appealed from this decision, and the Cours des Appels has now confirmed the judgment and added thereto five hundred francs for costs. And yet nowhere is quackery more profitable than in Paris.

MEDICAL JOURNALISM IN RUSSIA.—The medical press in Russia shows signs of increasing prosperity. According to *Vratch*, a medical journal is soon to be established, which is to appear three times a week, and it is also contemplated establishing another periodical devoted to medicine and hygiene.

ASSOCIATION OF GERMAN ALIENISTS.—The committee has decided that the next meeting of the Association of German Alienists shall be held in Leipzig on September 16 and 17, 1884. Those desiring to present papers are requested to notify Dr. Nasse, of Bonn, before August 1.

THE FRENCH ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE will hold its thirteenth annual session in the city of Blois from September 4 to 11, 1884.

PUBLIC HEALTH LEGISLATION IN MASSACHUSETTS.—The opponents to the enforcement, by the Massachusetts State Board of Health, of the law to prevent the adulteration of food and drugs, have introduced an amending bill into the present legislature, by which they hope to destroy the efficiency of the present law. By those strange fatalities which affect State legislative bodies, says *The Sanitary News*, the majority of the members of the committee on public health are men inimical to the best health interests of the State, and the bill referred to was drawn and is championed by the chairman of the health committee. He has succeeded in securing a majority report in favor of his bill, but it is a report from the "unsound majority." A minority of the committee reports a good bill as a substitute for the amending bill.

ERGOT, GRASS, AND THE KANSAS EPIDEMIC.—We have received several communications kindly instructing us as to the relations of ergot and grass. We ventured to intimate, in a previous issue, that ergot does not usually grow upon grass. Dr. Salmon, of Washington, D. C., among others, has sent us references to some elementary text-books which state that it does grow elsewhere than on corn. This is not denied, but ergot is not usually nor commonly found on the grass which animals graze upon. Hence when it is asserted that an epidemic of ergotism has appeared among grazing cattle, the evidence that ergot grew upon the grass in large amount must be quite strong.

DR. STEPHEN SMITH.—The General Secretary of the Committee of Organization of the International Congress of Hygiene, Professor Van Overbeek de Meijer, has informed Dr. Smith that the Committee have selected him to read a paper before the Congress at its session, on August 25th next. The invitation has, we are informed, been accepted.

DR. MORELL MACKENZIE'S WORK.—We regret to learn that the second volume of Dr. Morell Mackenzie's work on Diseases of the Throat and Nose, which has been so long looked for by the medical profession in this country as well as in England, has been destroyed in a fire which broke out a few weeks ago in the premises of Messrs. Pardon & Sons, printers, in the city of London. Fortunately some proof-sheets remained in the possession of the author from which the book can be reprinted, but the publication, which was near at hand, will, of course, be considerably delayed by this unfortunate accident.

ACTINOMYCOSIS IN AMERICAN CATTLE.—Professor James Law, of Cornell University, writes to the *Journal of Comparative Medicine* that actinomycosis in American cattle was recognized by American veterinarians long before Dr. Belfield described it. Professor Law had tanght its true nature in his lectures and had treated it successfully with phenol. We fear that Professor Law has been alone in his knowledge up to a very recent time.

A FORTUNATE MEDICAL COLLEGE.—A dispatch from Cleveland, O., says that some wealthy Clevelander, name unknown, has given $150,000 for the erection of a new building for the old Cleveland Medical Society, which now goes under the name of the Medical Department of the Western Reserve University. The new building will go up on the site of the old one, at St. Clair and Erie Streets. It will be four stories high, and measure 90 by 145 feet. A sufficient endowment to keep the college running accompanies the gift.

SOMETHING NEW IN DEGREES.—A dispensary in this city, under homœopathic auspices, has an annual commencement and grants degrees of ophthalmic and aural chirurgeon—O. & A. Chir.

CONSIDERATE COLLEGES.—The Detroit *Free Press* says: "The Cincinnati *Commercial Gazette* is authority for the intimation that the Ohio medical colleges will not take, hereafter, for dissection, the bodies of persons who have been obviously murdered for the purpose of sale. This will be a heavy sacrifice for the colleges, but it is no more than the community has a right to expect."

Reviews and Notices.

A MANUAL OF PRACTICAL HYGIENE. By EDMUND A. PARKES, M.D., F.R.S., edited by F. S. B. FRANÇOIS DE CHAUMONT, M.D., F.R.S. Sixth edition. With an Appendix, giving the American Practice in Matters Relating to Hygiene, prepared under the supervision of FREDERICK N. OWEN. Two vols. Wood's Library of Standard Medical Authors. New York: William Wood & Co. 1883.

MR. WOOD has done a real service in placing this valuable and standard work in the hands of American physicians. Sanitary science is not a subject which the ordinary physicians pursue with avidity; in fact, it is something he has been inclined too much to neglect. This is partly because no practical and comprehensive work on hygiene which was at the same time cheap has been in the market. The present work has been carefully edited by both American and English editors, and it can be safely depended upon in the lines of which it treats. The late Dr. Parkes divided the study of hygiene into three branches, embracing the several epochs of human life in its relation (1) to natural conditions, *i.e.*, soil, air, food, etc.; (2) to man's social and corporate relations as a member of a community with certain customs, trades, modes of living, etc.; (3) to man's capacity as an independent being having thoughts, feelings, personal habits, etc.

The present work follows in the main the classification thus laid down. The first volume treats of water, air, food, drink, clothing, and soils. The second volume treats of dwellings, exercise, climate, meteorology, individual hygiene, disposal of the dead, and prevention of disease. A considerable part of this volume is devoted to the service of the soldier, a matter of slight interest to Americans. There is also a good deal said about disinfectants which might be left out.

The American Appendix contains some of the best chapters in the work. It covers the subject of "Water," by Dr. Elwyn Waller; "Character of American," by Dr. N. L. Britton; "Climatology," by Dr. J. G. Richardson; "Ventilation and Warming," by Dr. D. F. Lincoln; "Removal of House Waste," by E. S. Philbrick; "Food Adulteration," by Dr. E. G. Love; "Some Hints to Sanitary Inspectors," by Mr. Frederick Owen, to whom belongs the credit of preparing and supervising the Appendix.

LEGAL MEDICINE. Vol. II. By CHARLES MEYMOTT TIDY, M.B., F.C.S. Pp. 508. Philadelphia: Henry C. Lea's Son & Co. 1884.

THE present volume is prepared from notes of lectures delivered at the London Hospital in 1882. Like the previous volume it represents the results of a vast deal of conscientious labor as well as practical experience. In fact, the author seems at times to be painfully careful that no detail or phase of his subject escape him. Owing to this fact, and the tendency to classify and sub-classify, the work is not in all of its parts easy reading. The author's plan of not interpolating cases but of putting together at the end of his chapter is an excellent one and does much to keep up the continuity and interest of the discussions.

The present volume treats of legitimacy and paternity; pregnancy and abortion; rape, indecent exposure, sodomy and bestiality; live birth and infanticide; asphyxia, drowning, hanging, strangulation, and suffocation.

We can hardly criticise the method in which these different subjects have been treated. Perhaps the subject of sexual perversion receives less attention than it deserves, especially in view of the numerous recent contributions to the subject.

The chapters on hanging and suffocation are, aside from the microscopical pathology, very complete. One turns with some interest to the subject of the post-mortem appearances after hanging and strangulation, in view of the recent discussions over the Dwight case. The careful descriptions here given, when compared with the post-mortem record of Col. Dwight, show that there was almost nothing in the latter, aside from the hypothetical cord mark, to justify the view of self-strangulation.

Dr. Tidy's work, which this second volume finishes, will rank with the best treatises upon medical jurisprudence in any language.

A MANUAL OF OBSTETRICS. By A. F. A. KING, M.D., Professor of Obstetrics and Diseases of Women and Children in the Medical Department of the Columbian University, Washington, D. C., and in the University of Vermont, etc. With fifty-nine illustrations. Second Edition. Philadelphia: H. C. Lea's Son & Co. 1884.

THE second edition of this useful little volume differs in no essential respect from its predecessor, which was published two years ago. As an outline of obstetric practice, as understood in our country to-day, it commends itself to the student as well as the practitioner who may desire to refresh his memory without having recourse to the more voluminous treatises of Leishman, Playfair, Lusk, and others.

PRACTICAL PATHOLOGY. By G. SIMS WOODHEAD, M.D., F.R.C.P.E., Demonstrator of Pathology in the University of Edinburgh, etc. With one hundred and thirty-six colored plates. Philadelphia: H. C. Lea's Son & Co. 1884.

THERE has been lately manifested a quite unusual degree of activity in the department of pathology. It seems as if in England, as well as our own country, we had but recently come to realize the surpassing significance of this science, and its direct relation to the more practical branches of medicine. Besides translations of such standard works as Cornil and Ranvier, and Zigler, we have had several original treatises by English authors. All have been well received and still the demand for good pathologies would seem to continue. At least Dr. Woodhead is of opinion that a thoroughly practical guide to the work involved in the preparation and examination of diseased organs and tissues has been a want so keenly felt as to have become almost a reproach to pathologists.

Whether we are willing to admit this rather sweeping assertion or not, we must unhesitatingly pronounce the author's work a decided success. It is not a systematic treatise on pathology, nor even a complete index of all the tissue-changes that may be wrought by disease. But it forms a real guide to the student and practitioner who is thoroughly in earnest in his endeavor to see for himself and to do for himself. Not that the necessity of tuition is thereby done away with. By no means. But the work supplements, in a very thorough manner, the lectures usually delivered in our medical schools. And it is true that no work of precisely this kind has hitherto appeared in English. To the laboratory student Woodhead's "Pathology" will be a helpful companion, and all those who may wish to familiarize themselves with modern methods of examining morbid tissues are strongly urged to provide themselves with this manual.

A commendable feature of the book is the artistic beauty of the numerous drawings which illustrate the text. Moreover, these drawings are not fancied pictures, or merely schematic diagrams, but they represent faith-

fully the actual images seen under the microscope. We are not of opinion that the work should have been burdened with synoptical descriptions relating to normal histology, a knowledge of which is to be presupposed before pathology can be profitably studied. Nor do we think that it was necessary to introduce explicit directions for conducting post-mortem examinations. It is also painfully apparent that the different chapters are very unequally dealt with, the author having a seeming fondness for some organs, and perhaps a certain amount of contempt for others. But these are minor faults, and may be easily remedied in a second edition. The work will be found so useful by increasing numbers of students that a new issue will doubtless soon be called for. In the meantime the author merits all praise for having produced a valuable work, and the publishers may be congratulated on having creditably issued the same.

VETERINARY MEDICINE AND SURGERY IN DISEASES AND INJURIES OF THE HORSE. Compiled from standard and modern authorities, and edited by F. O. KIRBY. Illustrated by four colored plates and one hundred and sixty-eight wood engravings. Pp. 332. New York: William Wood & Co. 1883.

THIS work has been prepared, says the editor, with a desire to present in a concise form a practical manual of the diseases and injuries of the horse and their treatment, for the use of physicians and other intelligent horse-owners.

We have no doubt that most physicians will welcome a book which tells them of the ailments of the horse. The present volume is written with clearness and conciseness, and is well illustrated; the practical therapeutical recommendations can also be trusted.

The illustrations are numerous and excellent.

BACTERIA. By DR. ANTOINE MAGNIN, Licentiate of Natural Sciences, etc., and GEORGE M. STERNBERG, M.D., F.R.M.S., Major and Surgeon U.S.A., etc. New York: William Wood & Co. 1884.

IN 1880 there appeared a translation of Magnin's work on bacteria, the translator being Dr. Sternberg. So great has been the progress in mycology within the past few years that the book, which was then fairly representative of our knowledge on the subject, is to-day in more than one respect behind the times. Dr. Sternberg has, therefore, very wisely, we think, concluded to rewrite the work, in order to bring it up to modern requirements. His own rich experience in this department of science, coupled with the fact that his clear judgment is never disturbed by undue enthusiasm for micro-organisms or exaggerated notions concerning their surpassing significance, render him peculiarly fit to accomplish this rather difficult task.

In its present shape the book is vastly superior to the issue of 1880. For those who take an interest in the study of bacteria and bacterial diseases, and they should include all earnest and conscientious physicians, the work of Magnin and Sternberg will commend itself as the best *résumé* of what is actually known concerning there intricate and interesting topics.

THE HIP AND ITS DISEASES. By V. P. GIBNEY, A.M., M.D., Professor of Orthopædic Surgery New York Polyclinic, Assistant Surgeon to Hospital for Ruptured and Crippled, etc. 8vo, pp. 412. New York: Bermingham & Co.

THIS volume of four hundred and twelve pages and sixty-four engravings reflects great credit upon its author and is justly meeting with a cordial reception on the part of the profession, because it supplies the want for a special treatise upon the lesions and conditions of the hip.

These have been until within a few years included under the general term of hip disease, without reference to the special anatomical and pathological features by which they are now distinguished.

Dr. Gibney aims to contribute something to still further perfect Barwell's classification, and has succeeded in placing prominently before the reader pathological and clinical characteristics of some diseases of the soft parts which have not heretofore received deserved attention. His experience of thirteen years in the Hospital for the Ruptured and Crippled, where more cases of hip disease are annually treated than in any similar institution in this country, eminently qualifies him for this work, and he has labored to produce a volume, which he modestly deprecates in his preface, but which is very complete in the departments of pathology, symptomatology, etiology, and diagnosis. An introductory chapter is followed by one on the anatomy of the hip, containing many valuable and unusual features, and this is succeeded by one upon sprains and contusions, in which an effort has been made to render diagnosis easy, and some suggestions are given as to prognosis which the author claims are at variance with popular teachings.

The chapter upon neuroses includes neuromimesis and is especially clear and forcible, while a chapter on rheumatism of the hip has been introduced, illustrated by several conclusive cases. Chronic rheumatic arthritis and coxo-femoral periarthritis are next considered, the latter being the term given to periarticular cellulitis, and the author insists upon the existence, or not, of the lameness long prior to the development of the acute symptoms as an essential point in the history. The subject of bursitis has been given a special chapter for the first time, and is followed by a chapter upon acute primary synovitis, which the author describes at length, and insists that the thorough study of a case would shake one's faith in the current pathology of joint disease.

Acute epiphysitis of the hip is a subject which is at present of growing interest, and the author thinks that many cases that have been habitually classed among cases of cogenital luxation and traumatic separation of the epiphysis, may now be looked upon as due to acute inflammatory diseases occurring in very early life.

The remainder of this chapter is devoted to diastasis of the head of the femur, while the following chapter includes periostitis and malignant diseases. A large part of the volume is devoted to chronic articular ostitis, which is made synonymous with morbus coxarius, morbus coxæ, hip-joint disease, etc., and its pathology is exhaustively considered, after which the author proceeds in the chapters upon the etiology to define the relations between traumatism and struma in an impartial manner.

Many other points of equal importance are elucidated in the chapters upon the clinical history, symptomatology and diagnosis, and a striking feature of this entire work is the number of illustrative cases which are cited from the author's record books.

The treatment of chronic articular ostitis as pursued at the institution with which Dr. Gibney is associated is extremely conservative, the method which he dignifies by the name of the "expectant" being the ordinary course pursued. For this reason the pages devoted to the consideration of the various more scientific methods based upon the use of mechanical appliances do not possess the same value as the previous portions of this highly commendable work, since the present policy of the hospital is too restricted to permit their employment in its wards, and consequently the author's opinions of their comparative merits do not evince that intimate acquaintance with the minutest details of the treatment which characterizes the rest of the book and renders it so valuable. This is to be the more regretted, as this hospital, if managed upon more liberal and modern principles would prove of the greatest possible benefit to this department of surgery, by permitting impartial and intelligent comparisons of the various methods of treatment.

As a whole, the book is a striking and valuable contribution to this special department of surgery, and reflects credit upon its originator, and will achieve for itself a prominent position in the literature of joint diseases.

A YEAR-BOOK OF THERAPEUTICS FOR 1883. Edited by ROYAL W. AMIDON, M.D. Pp. 250. New York: G. P. Putnam's Sons. 1884.

ON the whole the editor has presented a very complete and judicious collection of the therapeutical contributions of the past year. The book contains also some records of pharmacological studies which are of permanent value.

We make the criticism that the large proportion of the paragraphs are taken second- or even third-hand, the editor evidently not having consulted the original articles. Scant justice is also done toward American writers.

The book is very well printed, and it will form a substantial addition to the physician's library.

A DIRECTORY TO THE CHARITABLE AND BENEFICENT SOCIETIES AND INSTITUTIONS OF THE CITY OF NEW YORK. Published for the Charity Organization Society. New York: G. P. Putnam's Sons.

THIS little work is an excellent guide to the charitable institutions of the city. It will prove of especial value to those who have occasion to contribute to eleemosynary institutions, or whose profession or business necessitates familiarity with organized charity. The insertion of advertising slips between the pages of the tract is to be regretted; but is perhaps open to extenuation for pecuniary reasons. That some errors may have crept into the text is to be anticipated; but this is not surprising considering the extent of the subject, and the difficulties attending the collection of reliable statistics.

A HANDBOOK OF SKIN DISEASES AND THEIR HOMŒOPATHIC TREATMENT. By JOHN R. KIPPOX, M.D., LL.B., Professor of Principles and Practice of Medicine and Medical Jurisprudence, Chicago Homœopathic Medical College, Visiting Physician to Cook County Hospital, etc., etc. Second edition, revised, enlarged, and illustrated. 12mo, pp. 292. Chicago: Duncan Brothers. 1884.

THIS little volume is more directly presented to the students and practitioners of homœopathy. In it the author has given a very complete *résumé* of the essentials of practical dermatology. The anatomy, physiology, and pathology of the skin, together with the symptomatology, etiology, and diagnosis of cutaneous diseases, first receive attention, followed by a description of each affection in detail, and its clinical history and treatment (Part II.). Part III. consists of a chart or tabulated form, wherein the several affections are systematically arranged, showing their diagnostic characteristics, together with therapeutical and dietetic observations. This latter will be found to be a most serviceable feature of the book. On the whole the matter is presented with a conciseness which will receive due appreciation, since the author states that the work is really a condensation of material originally intended for a much larger volume.

THE FIELD OF DISEASE: A BOOK OF PREVENTIVE MEDICINE. By BENJAMIN WARD RICHARDSON, M.D., LL.D., F.R.S., Fellow of the Royal College of Physicians, and Honorary Physician to the Royal Literary Fund. 8vo, pp. 737. Philadelphia: Henry C. Lea's Son & Co. 1880.

"I HAVE written this book," says the author in his preface, "for those members of the intelligent reading public who, without desiring to trench on the province of the physician and surgeon, or to dabble in the science and art of medical treatment of disease, wish to know the leading facts about the diseases of the human family, their causes and prevention. Anyone, therefore, who opens this book with the expectation of finding in it receipts and nostrums, will not have that expectation fulfilled, and will discover reference to no remedies except such as are purely preventive in character." Although the book is thus nominally a popular treatise, it is by no means wanting in interest or value to the professional reader. The usual, almost the inevitable fault with books of this kind is, that they are too technical for the layman, yet too puerile for the expert. Precisely the same difficulty and the same fault attend all efforts to teach a foreign language. Unless the author, who is for the nonce the teacher, is constantly on his guard, he unconsciously lapses into some medical idiom which bewilders and perplexes the student. Now, it is just this rare and happy sympathy with his hearers that raises Dr. Richardson's efforts as a teacher distinctly above the plane of mediocrity.

With a rhetorical vigor as charming as it is impressive, he unfolds his argument in a delightfully natural and common-sense way. His touch, at once firm and delicate, is never uncertain. His workmanship is always direct, and often artistic. He is incisive, never involved; terse, but never turgid. No detail is slurred, no grouping is careless or purposeless; while the final pose of each subject is always striking, forcible, and correct. He has carefully avoided anything like extravagance or rashness of assertion, and, though his personality is stamped on every page, he has not taken advantage of the untrained ear of his audience to inveigle them in the pursuit of personal hobbies. He has in this instance, as in former writings, kept free from the crying fault of all our efforts to "educate the laity," viz., a proneness to dispose of intricate subjects in a casual manner, or else to shower about a choice collection of hopelessly scientific *argot*, with a view to dazzle the awe-stricken beholder, in much the same off-hand way a gymnast manipulates the heavy dumb-bells at the circus. There is an air of quiet strength, however, in all that Dr. Richardson says that is far more telling than any display of literary or scientific gymnastics.

As the main drift of medical research is at present distinctly in the direction of the development of means for the prevention of disease, any honest attempt at an analysis of medicine from such a standpoint by an observer as candid and acute as Dr. Richardson appeals to the progressive physician. Especially must this be so when the method employed is strictly and thoroughly scientific, as it certainly is in this case. Very naturally, and very appropriately, the author addresses the public primarily because he recognizes that no progress can be made in preventive medicine without "a sympathy of action, based on knowledge, to enable every man and woman to assist." The benefit to the professional reader is that he has the whole range of medicine presented to him from a fresh standpoint, and hence gains a truer, even new, perception of many details, not to speak of a more intelligent grasp of whole subjects. He loses nothing from the truth being presented to him in simple language. The style is really rather a gain than otherwise.

Now, we are far from claiming that Dr. Richardson's treatise is not faulty. It assuredly is, both from a public and professional standpoint. We have noted the difficulties that assail the writer of a popular medical book. Dr. Richardson, with consummate tact, rarely gets his readers beyond their depth. That he does err oftener than usual in this case is to be attributed to the double motive of the work, which throws a double responsibility upon his pen. He must not only present the broad facts clearly to the public, but must preserve intact a correct analysis and treatment which will satisfy the technical critic. There is no such thing as perfection to be expected in such a task, a fact the author has well appreciated and frankly stated. We feel sure the profession will perceive the importance of the subject which Dr. Richardson has, on the whole, so well handled, and do not doubt the book will soon gain the widespread popularity it surely deserves.

BED-SIDE URINE TESTING, INCLUDING QUANTITATIVE ALBUMIN AND SUGAR. By GEORGE OLIVER, M.D. Lond. Second Edition. London: H. K. Lewis. 1884.

IN this little work Dr. Oliver describes the various new urinary tests which have of late become the vogue. He gives his opinion rather in favor of sodium tungstate and potassio-mercuric iodide as the most delicate. Dr. Oliver also gives a new method of quantitatively estimating albumen, this method depending upon the variations in opacity produced by test-papers of given strength. A new method of quantitatively estimating sugar by indigo-carmine is also given. Dr. Oliver's main object is to present the merits of test-papers as carriers of the reagents necessary for detecting albumen and sugar in the urine. With these he believes that the practice of bed-side urinary tests will be made more common as well as easier. Dr. Oliver rather exaggerates the importance or necessity of bed-side testing. Even by his own showing, and with the test-papers, one must often have to filter and boil the urine. A serious objection also to all these new tests is that they require the use of citric acid, which precipitates mucus, and produces a cloud that may interfere with the subsequent reaction. The practical value of Dr. Oliver's book is great, but it does not depend very much upon the test-papers. And further, he tells everything except how to make them and where to get them.

STUDENTS' MANUAL OF DISEASES OF THE NOSE AND THROAT: A Digest Descriptive of the more commonly seen Diseases of the Upper Air-tract, with the Methods of their Treatment. By J. M. W. KITCHEN, M.D. Pp. 124. New York: G. P. Putnam's Sons. 1883.

THE author begins with an anatomical and physiological *résumé;* he then gives the armamentarium necessary for treating nasal and throat disease. Then follows a description of the pharmacopœia, manipulation methods, and special diseases. The book is systematic and clear. Being a "digest," details are necessarily omitted, yet these are things which the physician often needs most.

Reports of Societies.

MEDICAL SOCIETY OF THE COUNTY OF NEW YORK.

Stated Meeting, May 26, 1884.

ANDREW H. SMITH, M.D., VICE-PRESIDENT, IN THE CHAIR.

DR. MILTON JOSIAH ROBERTS read a paper on

THE TREATMENT OF ANKLE-JOINT DISEASE AND THE MECHANISM OF ITS CURE,

and presented a patient cured without deformity and without anchylosis.

The general principle was laid down that, in treating chronic articular inflammation locally, while maintaining the function of the healthy joint, limited movement of the diseased one should be permitted under the restrictions of lateral tension, variously exercised under efficient resilient support, elastic linear sustentation, or traction, etc. The plan was analogous to that which he had already published concerning hip-joint disease, the pivotal idea being correlation and conservation of forces. We had been accustomed to regard a healthy joint as different in some way from a diseased one; but a study of the subject showed that health merged into disease and disease into health by imperceptible gradations, so much so that it was impossible to determine when one ceased and the other began.

The author of the paper submitted the following preliminary proposition: That studying a patient suffering from ankle-joint disease, resulting in a lowering or abolition of functional activity, ultimately becoming cured, so that the parts shall be strong and capable of performing normal functions, involved the conception of a series of transformations from the morbid to the healthy state, also a series of metamorphoses from a condition of health to one of disease, and, further, of some fundamental cause for the effects produced.

The cause is called force. The forces which produce changes in inorganic bodies are called *physical;* those which produce changes in organic bodies are known as *vital* forces, and the latter are sometimes alluded to under two heads—vital forces of plants and vital forces of animals.

Forces produce definite effects, and the relation which exists between cause and effect is *law.* Law signifies previous intimacy between cause and effect; and also a constancy in their relations.

From these statements it followed that certain definite conditions must always produce from the same cause the same effect; that the same cause acting under different determining conditions may produce entirely different effects; that different causes may produce the same effect.

The author of the paper then reached the idea he set out to gain—namely—that varying dynamical effects may be produced by different statical environments; that the forces of nature are correlated; that the physical can be transformed into the vital force; that one vital force can be transformed into another; and that the determining condition of vital force, the same as of physical force, can be developed artificially.

The remedial problem, stated in general terms, was: Upon the acquisition of the controlling amount and kind of knowledge just indicated, it will be the duty of physicians to at once re-establish as nearly as may be, by artificial means, the normal equilibrium of the involved part, thereby giving physiological direction to the action of the vital forces. By such means it was confidently expected that the scientific physician would be able to rapidly and successfully conduct his patient from the condition of disease to one of health.

Passing the symptomatology, etc., Dr. Roberts directed attention to the therapeutical utilization and correlation of vital forces in the treatment of ankle-joint disease. Preliminary to this, however, the author of the paper spoke of the conditions upon which a healthy ankle-joint depended, and reviewed the harmonious action of the physiological forces, and the fundamental determining conditions which gave rise to them. As an outcome he thought that was sufficient to encourage research in the direction that would finally enable the surgeon to transform pathological into physiological forces.

How are the environments involved in healthy action to be produced artificially in a given case of ankle-joint disease? The functions of the muscles have been interfered with, and they are in a state of reflex spasm, consequently the placing of these under the control of mind is one of the objects of treatment, and when this can be done, something in the way of surrounding the diseased joint with the environments of a healthy joint will have been accomplished.

There are several methods for accomplishing this, including circumferential compression, motion, *elastic* traction and support, etc. Immobilizing the joint operates against all the physiological indications. Although cure is effected under the influence of rigid traction and abolition of motion as far as possible, it is a long process. If the diseased joint can be immediately placed, by artificial means, very close to the physiological condition, so that all its component parts can perform as much as possible their function, such environments conduce to rapid restoration of structure where this restoration is possible.

Dr. Roberts then exhibited his apparatus, and also the patient, who suffered from suppurative carious inflammation of the ankle-joint and was cured in eight months without anchylosis and without deformity. He took issue with the statements made by an eminent New York surgeon who had recently published a series of cases of ankle-joint disease and said that it would be necessary for the patients to wear mechanical support during life.

The discussion was opened by Dr. F. Lange who asked Dr. Roberts if he referred to a paper which he (Dr. Lange) read before the New York Surgical Society, and published in its proceedings.

Dr. Roberts said that he did.

Dr. Lange said he simply wished to say that the statement made by Dr. Roberts was erroneous, and that he did not mention that his patients would probably need mechanical support for life. On the contrary, he presented the cases and the plan of treatment to illustrate the fact that some of them had already, within a comparatively short time, regained very good functional result, and that as a precaution, until new formation of bone was complete, the patients should wear the apparatus which kept up the physiological movements and gave the parts support.

He thought that Dr. Roberts had not yet exhausted all therapeutical procedures in the treatment of joint affections. For the real nature of the disease, in by far the larger number of cases was tuberculous, and the extent and intensity of the morbid process must greatly influence the surgeon's decision concerning the kind of therapeutical procedure which should be resorted to. Despite mechanical appliances, there remains a certain number of cases in which the indication for excision exists. Before the actual value of Dr. Roberts' apparatus in the case presented could be determined, it was necessary to know to what degree the joint was implicated, which had not been stated. He could not imagine recovery with normal mobility occurring in a case in which there had been actual carious destruction of the joint. It should not be forgotten that, in children, almost the whole of the articular ends of the bones are cartilaginous, and the fact that a number of pieces of bone escaped from the fistulous openings, made it seem to him probable that the disease in Dr. Roberts' case, was located at the epiphyseal junction. To what extent secondary changes occurred was not known, and this should be stated before the efficacy of the plan of treatment could be correctly estimated.

Again, with carious destruction of the joint, it was necessary to determine whether the movements were apparent or real, as they were very apt to be apparent, and not really belonging to the joint, especially after some repair had taken place.

Dr. J. L. Corning had had the opportunity to see Dr. Roberts' case from the very beginning, and could vouch for the accuracy of all the statements that had been made concerning its history and treatment. The joint presented the same appearance as that for which he had frequently seen excision performed in clinics at Heidelberg and elsewhere. He regarded the principles upon which Dr. Roberts' plan of treatment was based as a substantial advance in scientific orthopedic therapy.

Dr. J. F. Ridlon said his experience had led him to believe that most cases of joint disease recover under the influence of fixation, protection from injurious concussion, and rigid traction to meet special indications. There were certainly many cases which called for protection of the joint, and the apparatus exhibited by Dr. Roberts failed to accomplish this. Doubtless, the patient presented was able to walk within a few hours after the apparatus was applied, but there were many cases in which it would not have afforded sufficient support. Traction to more than twenty or thirty pounds requires a perineal support to make it endurable and effectual.

Dr. Ridlon also cited a case in which just as good a result as that seen in Dr. Roberts' case, which was most excellent, took place without any treatment except cleanliness and the use of an ordinary bandage. That fact showed that possibly many cases would get well without any mechanical appliance, and that mechanical apparatus might get more credit than it was entitled to. He thought it wrong for Dr. Roberts to give the impression that a single form of apparatus was applicable to all cases.

Dr. G. R. Elliott had watched Dr. Roberts' case throughout, and thought that the duration of treatment was much shorter than it would have been by adopting the method of immobilizing the joint. He had yet to see a case which had not been fully relieved by the treatment, except some in which abscesses had formed about the joint, and there the pain was not relieved until the abscesses had been evacuated. Until destruction of the joint occurs, the principle of converting pathological into physiological forces could be applied.

Dr. Levi regarded rest in the treatment of inflammation as the great essential, and thought that an apparatus which permitted motion in an inflamed joint was one that operated in violation of the laws of nature. He maintained that thwarting nature was prolonging the disease in this class of cases. What Dr. Roberts had done was included in motion and pressure, a method of treatment which had long ago been adopted for certain stages in this class of cases. Doubtless there are cases in which more motion than is permitted could be allowed with benefit, especially in the later stages of joint diseases; but there is a time when motion is detrimental.

Dr. Roberts said he did not bring his method forward as a cure for all cases, as there are cases in which no treatment will avail. He believed that protection of a diseased joint was afforded more surely by leaving the muscles so that they could act, and bringing the limb into angular positions so as to break the force of the concussion, than by rendering the limb rigid by means of mechanical apparatus.

Of course the diseased muscles could not protect the joint as could normal muscles, and for that reason artificial muscles were used to compensate for the loss of power, and then motion can take place without harm.

The report of the Committee on Hygiene,

ON OVERCROWDING IN PUBLIC SCHOOLS,

was received and ordered to be printed in the minutes.

Dr. J. A. Irwin offered the following resolution, which was seconded by Dr. C. C. Lee, and unanimously adopted :

MEDICAL SERVICE ON TRANSATLANTIC STEAMERS.

"*Resolved*, That this Society, being convinced that the medical and sanitary administration of ocean steamships is unreliable, and often far from satisfactory, whereby many lives are needlessly sacrificed, and foreign infection is freely imported to this country, desires to press upon Congress the necessity of such legislation as may protect the health of citizens and intending citizens during the ocean transit, and guard the United States against the now constant danger of epidemic invasion."

Unanimous consent being obtained, the by-laws were suspended, and the Society adjourned, to meet on the fourth Monday in September, 1884.

A New Treatment for Tape-worm.—A correspondent of the *Medical and Surgical Reporter* recommends the following: ℞. Chloroform, ex. fil. maris, āā f℥j.; emul. ol. ricini (50 per cent.), f℥iij. M. Sig.—All to be taken at once after twenty-four hours' fast. He adds that in every case the medicine was well borne, and the worm expelled entire. In two cases he omitted the male fern, and the result was the same as when the latter drug was in combination.

THE THIRD GERMAN CONGRESS FOR INTERNAL MEDICINE.

Held at Berlin, April 21, 22, 23, and 24, 1884.

HERR VON FRERICHS, PRESIDENT, IN THE CHAIR.

(Special Report for THE MEDICAL RECORD.)

(Concluded from p. 600.)

THE morning session of Wednesday, April 23d, was occupied in a discussion upon

NERVOUS DYSPEPSIA.

HERR LEUBE, of Erlangen, reviewed briefly the literature of the subject, and then proceeded to give his conclusions derived from the study of a hundred cases of the affection. Since anatomical changes in the stomach are wanting, our observations must be confined to the clinical symptoms. During the continuance of the digestive process the patients are troubled by nervous symptoms of one sort or another, such as cerebral congestion, vertigo, lassitude, palpitation of the heart, aortic pulsations, etc. The symptoms directly referable to the stomach are those of congestion, eructations of an odorless gas, frequently nausea, and sometimes vomiting. A very constant symptom is a feeling of fulness and distention, sometimes passing into gastralgia. The globus and heartburn are very commonly present. Sometimes there is a ravenous hunger, and sometimes the appetite is lost after taking a few mouthfuls. There is usually constipation, seldom diarrhœa. The sleep is generally disturbed; the disposition is not joyous, yet a hypochondriacal depression of spirits is infrequent. Some patients suffer from many or all of these symptoms, while others may have but one, as, for example, a feeling of gastric fulness, although the digestion is perfectly performed.

Dr. Leube then detailed an analysis of the cases observed by him, noting the frequency with which each of the individual symptoms above mentioned occurred. The great difference between organic indigestion and nervous dyspepsia is that the former runs a more rapid and irregular course, while the latter is of a more purely symptomatic nature. In individual cases the diagnosis may have to be determined by observing whether the digestive process is completed within the proper time or not. This may be easily and with certainty ascertained by washing out the stomach six or seven hours after the ingestion of food. If it be empty, digestion is normal, and we have to deal with nervous dyspepsia. The affection consists in an abnormal irritability of the gastric nerves, which may be of peripheral or central nature, although in the latter case it must not be forgotten that the paroxysm is always determined by irritation originating in the stomach. The cause of nervous dyspepsia may be found in septic infection, or the disease may be dependent upon uræmia, malaria, or, finally, upon nicotine poisoning. Anæmia or debilitating diseases of any kind may be the basis for the abnormal nervous irritability, or it may arise in hysteria or simple "nervousness." Finally comes the so-called reflex dyspepsia from disease of the genito-urinary organs in either sex, or from constipation.

The prognosis of this affection is unfavorable. The author believed that a complete cure was very seldom obtained. Change of air, a carefully regulated diet, and the cold-water treatment he regarded as the most suitable therapeutic measures. Ergotine, which he had formerly looked upon with favor, had proved to be of little value.

HERR EWALD, of Berlin, regarded the classification of nervous dyspepsia among diseases of the stomach as a real advance, yet it was improper to confine the consideration of the question to the gastric symptoms alone, for often those referable to the intestinal tract were much the most prominent. He proposed as a more suitable name for the affection the term

NEURASTHENIA DYSPEPTICA, AUT VAGO-SYMPATHICA.

He was disposed to differ somewhat from the last speaker in that he laid more stress upon the nervous, rather than upon the organic or toxic origin of the affection. He regarded it as a symptom rather than a disease. He thought the examination of the contents of the stomach was often a valuable aid to diagnosis, yet by no means necessary in all cases, and even at times misleading. He had found remains of food in the stomach of a perfectly healthy woman seven hours after a meal, and on the other hand had found the organ empty in cases of true disease. As regards treatment, the only object to be aimed at is the direct or indirect strengthening of the nervous system. For this purpose the speaker advised sedatives, especially potassium bromide, gymnastic exercises, sea or mountain air, a bland nourishing diet, and the avoidance of fatiguing mental or physical labor. Regarding the diet, he believed with Trousseau that the most suitable for each case was that which the patient preferred. Tonics might be indicated, but a proper management of each case was all essential. The doctor, and not the doctor's stuff, was what cured this disease.

HERR FINKLER, of Bonn, took exception to the name of dyspepsia for this condition, since there was in reality no interference with digestion. He also looked with disfavor upon the plan of washing out the stomach and thought it of very doubtful utility.

HERR SENATOR, of Berlin, thought that too narrow a view was often taken of the affection, and related a case of a man who had gone the rounds and had tried every variety of treatment for a supposed nervous dyspepsia, but all in vain until somebody treated him for tape-worm and cured his indigestion. The speaker said he had seen several women who presented symptoms of a typical nervous dyspepsia which were found to be due to wandering kidney. So changes in other organs outside of the stomach might give rise to purely gastric symptoms. He agreed with Dr. Finkler in regarding the examination of the contents of the stomach as of no certain diagnostic value.

HERR JÜRGENS, of Berlin, said the gastric symptoms were to be referred not alone to disturbance in the stomach and intestines, but that often there were lesions of the mesenteric and splanchnic nerves.

HERR ROSSBACH, of Jena, did not like the name of nervous dyspepsia, and proposed the appellation

DIGESTIVE REFLEX NEUROSIS

as less misleading, and as tending to distinguish these symptoms more sharply from true organic dyspepsia.

HERR RÜHLE, of Bonn, remarked that nervous dyspepsia might terminate in death through the refusal of the patient to take nourishment.

HERR MEINERT, of Dresden, was inclined to regard true nervous dyspepsia as of rather doubtful occurrence, and believed the cause could in nearly every instance be discovered by painstaking investigation. The great clinicians were anxious to increase their number of nervous dyspepsias, but the simple practitioner sought rather to take his cases out of such a category, to find the cause of the symptoms, and to cure the disease.

The afternoon session was occupied by the reading of a paper by DR. GOLTZ upon

LOCALIZATION OF THE CEREBRAL FUNCTIONS.

After a brief review of the theories of Ferrier, Fritsch, Hitzig, Schiff, and Munk, the speaker said that all these authors had arrived at only partial truth. There was no paralysis following the removal of the so-called motor centres, but merely a sort of difficulty in the use of the muscles; there was no true anæsthesia, but only under certain circumstances a deadening of sensation. His experiments showed that the modern theory of cerebral

localization was false. The dogs which had suffered a symmetrical loss of substance in the anterior lobes, were not paralyzed but were awkward in the use of their muscles. They could eat, but were unable to hold a bone by their fore-paws. There seemed to be a disturbance of co-ordination. There was at the same time an increase in certain of the reflexes. Scratching the tail would be followed by protrusion of the tongue, and ruffling the hair on the back of the neck would cause the animal to shiver. There was also a return of certain reflexes which are present in young dogs but not in older ones, possibly because the latter have learned that they are unnecessary and therefore restrain them. Another curious result of this destruction of tissue in the anterior lobes is a change in the character of the animals. They became cross and fretful, snarling and snapping, and sometimes are seized with fits of rage. The exact contrary was observed in dogs in which the occipital lobes had been removed by a frontal incision through the descending horn of the lateral ventricle. These dogs became gentle and harmless, wagging their tails whenever any attention was bestowed upon them. This was especially noticed in those dogs whose former disposition was vicious. Besides this, although the dogs were not actually blind, deaf, etc., the special senses were remarkably blunted.

The author then exhibited a dog from whose brain the so-called motor centres had been removed in October last, and which presented the appearances just described. The dog was afterward killed, and on the following day Dr. Goltz demonstrated the loss of brain substance.

Dr. Günther had studied the question of the localization of the motor centres in a number of cases of wounds of the head. But his investigations had not gone far toward a solution of the problem, since the results obtained were by no means uniform.

Dr. Rosenthal, of Erlangen, thought that the fact of certain disturbances of function always following certain local diseases in the brain was too well established to admit of doubt. And if the results of experiments upon animals were not in accord with clinical facts, then the experiments were at fault. In Goltz' experiment the ataxic symptoms might be the consequence of a primary disturbance of sensibility.

Dr. Nothnagel, of Vienna, thought the contradiction between physiological experiments and clinical observations might be explained by the very great difference between the organization of the human brain and that of the dog. The relations of nervous supply in the dog might perhaps be analogous to the innervation of the lower extremities in man. In slight paraplegia in man the lower extremity may escape entirely or quickly recover its function, while the arm never, or only after the lapse of considerable time, recovers its power.

At the next session Dr. Rossbach, of Jena, presented a

REPORT OF THE COMMISSION FOR THE TREATMENT OF INFECTIOUS DISEASES.

The object of this commission, as stated at the last Congress, is to discover specific remedies for those infectious diseases which as yet are without any known antidotes. This object is to be attained by systematic observations and experiments made by a large number of physicians throughout Germany. The speaker hoped that soon all would be joined shoulder to shoulder in a warfare against the great enemy—infectious disease.

Dr. Riegel, of Giessen, next read a paper upon

PREPARATIONS OF CAFFEINE.

Although digitalis will always remain the great remedy in cardiac disease, it is yet of importance to find some other drug which may be substituted for this when necessary. Caffeine is, in the speaker's opinion, such a drug. He regarded it as deserving a place alongside of digitalis, and in certain cases as even worthy of the first rank. As regards the dose, the author advised beginning with 12 grains (0.8 grm.) *per diem*, and rapidly increasing until the desired result is obtained. The maximum dose was 27 grains (1.8 grm.). It is best to give the daily quantum divided into a number of small doses. The effects are obtained more speedily than is the case with digitalis, and there is no danger of a cumulative action.

A communication from Dr. Unna, of Hamburg, concerning

INTESTINAL PILLS

was then read. These are coated with keratin, which is not acted upon by the gastric secretions, but is soluble in the intestines.

Dr. Ewald had used silicate of soda as a coating for such pills, but had obtained no particular satisfaction from their use.

Dr. Schreiber, of Königsberg, then read a paper on

THE PATELLAR TENDON REFLEX,

in which he stated his belief that it could not be regarded as a direct muscle phenomenon, but rather as a reflex phenomenon.

Dr. Kühne, of Wiesbaden, described an article much used in Russia called

KEFIR.

It is very similar to koumiss in its properties.

Dr. Schumacher, of Aix, read a paper on

HÆMOGLOBINURIA AND SYPHILIS,

in which he concluded that very probably hæmoglobinuria was caused by syphilis. He related a case in support of this view, in which very favorable results were obtained by an anti-syphilitic treatment of the disease in question.

Dr. Edlefsen, of Kiel, presented a paper upon

THE ACTION OF POTASSIUM CHLORATE ON THE BLOOD.

His conclusions were that chlorate of potash could exert but little deleterious effect upon the blood as long as the absorption of oxygen was not interfered with.

The last paper of the session was read by Dr. Zülzer, of Berlin, and was entitled

CERTAIN CONSIDERATIONS CONCERNING WEIGHT.

The author sought to determine the weight of a man per cubic metre.

Upon motion of Dr. Rühle, it was determined to hold the next Congress in Wiesbaden.

Dr. Leyden then closed the labors of the Congress with a few words in which he said the members could look back over their work with satisfaction. In the discussions which had taken place considerable attention had been directed to theoretical points, yet matters of practical interest to the every-day practitioner had not been neglected, and it rejoiced him to say that the Congress had fulfilled its mission in this respect, and had opened up new paths for the physician to tread. In the name of the Congress he thanked all who had read papers or taken part in the discussions, as well as those who had by their presence and their interest contributed to the success of the meeting. Hoping to meet them all next year at Wiesbaden, he bade them farewell.

Pruritus Vulvæ.—Dr. William Goodell, of Philadelphia, prescribes for this disease—Carbolic acid, 1 drachm; morphine sulphate, 10 grains; boracic acid, 2 drachms; vaseline, 2 ounces. Also, pat the parts with a sponge soaked in boiling-hot water. This is also a most excellent application for that rawness so often found between the thighs of the newly-born.—*Louisville Med. News and Analectic.*

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, April 23, 1884.

GEORGE F. SHRADY, M.D., PRESIDENT, IN THE CHAIR.

DR. E. L. PARTRIDGE presented, on behalf of a candidate, a specimen of *acute colitis* occurring in the puerperal period.

DR. W. P. NORTHRUP presented specimens illustrating

GENERAL TUBERCULOSIS—RUPTURE INTO TRACHEA OF BROKEN-DOWN GLANDS — OBSTRUCTION OF RIGHT BRONCHUS—ASPHYXIA.

Patient is a female, aged two years and ten months, inmate of the New York Foundling Asylum. She had measles and scarlet fever a year ago, and has always been considered a delicate child. She was in usual health, with her nurse, out in the city, till five hours before death. After breakfast the nurse reports that the child was taken with a sudden severe "fit of strangling," followed by violent cough, and that followed by severe dyspnœa and cyanosis.

When brought to Dr. Simpson, of the Out-door Department, the child was moribund.

Emetics were given, but did not act. The child grew worse and worse, and died, asphyxiated, five hours from the first attack.

On percussion the left lung gave a duller note than the right. Since there was nothing found in the left, at autopsy, to give an abnormal note, the conclusion is that the note from the right lung was exaggerated pulmonary resonance. As for auscultation, posteriorly, no air could be heard entering either lung.

Autopsy, April 10, 1884.—Body: poorly nourished. "Rachitic Rosary" well marked. Frontal diameter of skull so contracted as to give a triangular shape to the calvarium. Long bones appear normal. Larynx and upper portion of trachea contain a moderate amount of tenacious mucus and pus. Lungs: On opening the thorax the right lung is found distended to its utmost, and does not retract. Distended alveoli are distinctly seen at the surface. The left retracts promptly the instant the pleura of that side is tapped. There are no adhesions over either lung. The trachea is cut across at the level of the episternal notch, and both lungs together are removed by separating the posterior attachments along the vertebral column from the cross-cut of the trachea downward. At the bifurcation and along the posterior and right sides of the trachea is found a mass of enlarged agglutinated glands. On opening into this mass a large mass of cheesy material, the size of an ordinary large hickory-nut, is rolled out of its bed. The trachea is opened, and is found to have, just above and to the right of the bifurcation, an aperture, the size of an old-fashioned silver three-cent piece, communicating with the cavity in the broken-down glands. In the right bronchus is a plug of cheesy material and tenacious mucus tightly filling it. On grasping the plug and gently moving it from side to side air escapes from beside the plug in bubbles and with some noise. A fragment comes away in the forceps, and again the plug keeps back the air. Piece by piece the plug is removed, each time some air escapes and the lung collapses. Miliary tubercles in moderate numbers are scattered over both lungs. No consolidation except at apex of right, where it comes in contact with the mass of glands above described. Liver: Few small glassy miliary tubercles are found on peritoneal surface and on section. Spleen: Thickly studded with tubercles, rather larger and opaque in appearance. Heart and kidneys are normal. Stomach: Moderate congestion, probably from irritating emetics given just before death. Intestines: Mesenteric glands somewhat enlarged, slightly livid, firm. Mucous membrane swollen, pale. Contents, yellow grumous material, with some tenacious, slightly greenish masses of mucus. Brain: Not examined.

Remarks.—The case presented to the out-door physician, then, was this: A child, two years and ten months old, rather poorly nourished, with a history of having been well till three hours before. It was then taken suddenly with "strangling," cough, dyspnœa. The nurse announced that just before coming to the asylum she pulled from the child's mouth "*four long worms.*" The larynx seemed free, there was no hoarseness, no stridor; but there was intense dyspnœa, the child seemed "struggling for breath." In short, there were symptoms of bronchial obstruction, and a history of "worms" expelled from the mouth. At autopsy no worms were found, and doubtless the so-called "worms" were stringy mucus, which, to the excited mind of the nurse, seemed sufficiently large.

The dead-book of the New York Foundling Asylum has records of several cases in which enlarged bronchial glands have given rise to marked physical signs. The most common of these is persistent cough, often paroxysmal in character. Such symptoms are frequently observed in poorly nourished children, the subject of numerous attacks of bronchitis or broncho-pneumonia. In one case there was well-marked asthma, due to pressure upon the bronchi.

In this case the broken-down glands opened into the bronchi, and emptied part of their contents into the lung, but so gradually as not to cause any bronchial obstruction.

The present case is one of general tuberculosis and rachitis, in which the broken-down bronchial glands ulcerated into the trachea, plugged the right bronchus, and caused death from asphyxia.

BRONCHO-PNEUMONIA—GENERAL TUBERCULOSIS.

Dr. Northrup also presented the lungs of a case of broncho-pneumonia in which there was marked infiltration of the bronchi, and side by side with this a case of general tuberculosis with disseminated miliary tubercles in the lung. The second was without hesitation to be pronounced tubercle. There were tubercles in the liver, spleen, and brain.

The first case showed the same miliary light-colored spots upon a reddish background. These could be seen from the pleura and upon section of the lung. The case was thought from its history to be pneumonia of protracted course. Child, a year and three months old, had measles in December, 1883, scarlet fever in January, 1884. Since that time the child had been out of observation, and returned shortly before death with ordinary signs of consolidation—bronchial breathing and high-pitched râles. The case was presented together with the case of undoubted miliary tuberculosis, to illustrate how difficult it is at the autopsy-table to say, in certain cases of children's lungs, whether the bronchi are infiltrated and look like miliary tubercles, or whether there are indeed tubercles present.

The present case is thought to be broncho-pneumonia. It having been removed from the body only about four hours when exhibited, no microscopic report was prepared, and it would be reported on at the next meeting.

DR. F. FERGUSON presented a specimen of

THROMBUS OF THE RIGHT VERTEBRAL ARTERY,

accompanied by the following history, furnished by Dr. Francis E. Dwight, Senior Assistant Physician, New York Hospital:

T. M——, twenty-eight years of age; Ireland; single; salesman; admitted April 2, 1884. No family history obtainable. Patient has always been in good health. No alcoholic or specific history can be obtained. For the past five weeks he has complained of earache and headache. About three weeks ago a slight discharge began from the painful ear. Of late his headache has been more severe. The patient continued at his work until two days ago, when he had a sudden attack of convulsions. Since then he has been drowsy and stupid, or subdelirious. On admission he was well nourished; his

temperature was 98° F., respiration 16, and pulse 56. There is no œdema. The face is expressionless. Pupils normal. There is no paralysis, hyperæsthesia, or photophobia. Reflexes are exaggerated. There is slight stupor. Utterance is very slow and hesitating. Respiration and pulse are regular. There is retention of urine. Physical examination: There is no apparent lesion of the thoracic or abdominal viscera. Urine, 1.020, acid, no albumen; microscopical examination negative. Ordered potass. iodid., gr. xx. t.i.d.

April 7th: Since admission his temperature has varied from 97° to 102.5° F.; respiration, 15 to 24; pulse, 60 to 100. There has been no change in the patient's condition until this morning, when he had a general convulsion, followed by coma. Temperature, 97° F.; respiration, 18; pulse, 70. April 14th: During the past week temperature has been 98° to 102° F.; respiration, 18 to 30; pulse, 80 to 116. The patient has been alternately comatose and very restless. The pulse has become feeble and the tongue dry. There is obstinate constipation. The patient is stimulated with whiskey and digitalis. April 18th: There is no marked change. April 23d: Since last note, temperature, 98° to 102° F.; respiration, 14 to 24; pulse, 100 to 120 and imperceptible at the wrist. The patient has been in deep coma. This morning his temperature began to rise, and at 3 P.M. was 107.8° F.; at 3.30 the patient died.

Autopsy.—One of the kidneys exhibited several small abscesses, but beyond that these organs were normal. The bladder was intensely congested. There was a prostatic abscess, which probably communicated with the tissues of the pelvis, surrounded to a limited extent the rectum, and was possibly caused by the persistent retention of urine. The heart was normal. The brain showed thrombosis of the right vertebral artery, just where it blends with the left to form the basilar. There was some hemorrhage into the lateral ventricles, and the blood was coagulated considerably, although the autopsy was made about twenty minutes after death. There was no point at which softening had occurred.

MYOMATA OF THE UTERUS.

DR. FERGUSON presented a specimen of multiple myofibroma of the uterus, removed from the body of a woman, forty-five years of age, a native of the United States, and a cook by occupation, who was admitted into the New York Hospital on March 26, 1884. Her menses had been always regular until one year ago, when she began to flow constantly but slightly. She first noticed enlargement of the abdomen in 1872, which she thought was more prominent on the left than on the right side. This enlargement of abdomen very slowly increased in size, and she suffered occasionally from nausea and vomiting. Two months previous to her admission into the hospital she complained of dizziness, headache, and great weakness. Her abdomen began to increase rapidly in size, and her feet and legs became swollen. She had dyspnœa, and was obliged to keep in bed. On admission she was fairly nourished, suffering from dyspnœa. She had moderate œdema of the ankles. Her abdomen was distended with fluid. She was aspirated, and one hundred and ninety-two ounces of clear serum withdrawn from the peritoneal cavity, which gave her great relief.

After aspiration a number of hard, smooth tumors could be felt through the abdominal parietes. The peritoneal cavity rapidly filled up after aspiration, and on April 1st she was again relieved of two hundred and eighty-eight ounces of ascitic fluid. She was stimulated and felt much relieved; she passed from six to twenty ounces of urine a day.

While her dyspnœa was much relieved by each aspiration, still it continued, and with the return of the fluid in the peritoneal cavity it became aggravated. She was again aspirated on April 10th, and one hundred and twenty-eight ounces withdrawn. She vomited latterly quite frequently; she was troubled with flatulence.

On April 15th she was relieved of two hundred and twenty-eight ounces of fluid from the peritoneal cavity, similar in character to that already referred to, and on April 20th she died from heart-failure.

On autopsy there were 5,500 c.c. of pure serum in the peritoneal cavity. All the organs were congested. The heart was flabby, its ventricular walls thin, and vegetation on the auricular surface of the mitral valve. During life a murmur was audible over the site of the mitral valve. The temperature ranged from normal to 100° F. The total amount of fluid which accumulated in the peritoneal cavity was about one thousand and eight ounces.

Dr. Ferguson also presented microscopic sections of these growths which showed the lymph spaces very well indeed. The tumors were multiple, and of the three varieties usually described—submucous, intramural, and subserous. One of the subserous tumors was nearly as large as a human skull of average size.

DR. LEWIS A. SAYRE presented a specimen with the following history:

POTT'S DISEASE OF SECOND TO NINTH DORSAL VERTEBRÆ OF THREE YEARS' STANDING—PARALYSIS OF THE LOWER EXTREMITIES FOR EIGHTEEN MONTHS—CURED BY PARTIAL SUSPENSION AND THE PLASTER-OF-PARIS JACKET.

Dennis C——, thirty-five years of age; Cork, Ireland; signal-man on the Great Southern & Western Railway, Ireland. Does not remember of any fall or injury, but attributes his disease to lifting at the Punchtown Races in 1874, and remaining all day afterward in his wet clothes. He took a violent cold, felt very weak, and shortly after had swelling in the glands of his neck, pains between his shoulders like pins and needles pricking him, and cold, as if a piece of ice were there. After about five months he noticed that his knees gave way with him, the right one first. Dr. Hobart, of Cork, applied dry and wet cups to his back. He became so much worse that he was sent to the Northern Infirmary, in Cork, where he was under the care of Dr. Tanner for five and a half months. He then returned home, where he stayed three months, his mother being obliged to turn him over in bed, his legs now completely paralyzed. He then spent five months in the Southern Infirmary of Cork, and was transferred from there as an incurable to St. Patrick's Home for Incurables in Cork, where he remained two and a half years, the curvature in his spine growing more marked, and all motion and feeling gone from his legs, so that after the nurse had put his feet in bed he would still think they were on the floor. He had to be lifted in and out of bed, and on to the closet.

In September, 1877, Dr. Lewis Hall Sayre, assisted by Dr. O'Sullivan, of Cork, applied to him a "plaster-of-Paris jacket," while he was partially suspended in the ward of St. Patrick's Home. The next day, while the nurse was lifting him out of bed, he moved his feet from the bed of his own accord, the first voluntary movement that he had made in nearly three years. In two days he walked about the ward on crutches, and in a week walked well without any support. He wore this jacket for *two and a half years*, when Dr. Hobart, of Cork, removed it and applied another. Dr. Hobart informed me that when he removed the jacket there was not the slightest abrasion of the skin on any part of his body, and that he had never complained of the slightest inconvenience, and for some months had been doing full duty as assistant orderly in the hospital.

The jacket applied by Dr. Hobart, in January, 1880, was worn eleven months, and when removed consolidation of his spinal column was complete, and the patient in excellent health. There was no abrasion on his skin, and he states that he never suffered the slightest inconvenience from his jacket.

He came to this country in July, 1883, and got an appointment as orderly in the Lunatic Asylum on Blackwell's Island, under Dr. Macdonald, and remained there

until after the building was burned in January, 1884. He had not worn any jacket or other support for over two years, and was in excellent health, and did not have a very conspicuous deformity. He lost his position as nurse at the hospital after the fire, and for some weeks was severely exposed in walking the streets hunting employment during the very cold and wet weather, and was attacked with pneumonia about March 1, 1884. He was placed in St. Francis' Hospital, in Fifth Street, on March 6th, and died very suddenly on the 9th, while eating his dinner.

I was not present at the post-mortem, which was made by some members of the house staff; but I was informed that death was caused by failure of the heart's action from fatty degeneration.

I afterward obtained this portion of the spinal column and cord. The third and fourth dorsal vertebræ are fused together, as are also the sixth, seventh, and eighth. The intervertebral cartilages between the other vertebræ remain quite distinct. At the junction of the fourth rib, with the vertebræ was an encysted cheesy mass, the size of a hazel-nut. The cord has not yet been microscopically examined.

On motion, the spinal cord was referred to the Committee on Microscopy.

Dr. Sayre remarked that this was the first opportunity he had had to obtain an autopsy since he had been using the plaster-of-Paris jacket in the treatment of spinal caries, and the specimen was especially interesting to him because the patient was not under his care, and yet it showed how complete a cure could be effected by the plan of treatment when carried out with ordinary intelligence.

Dr. W. M. Carpenter referred to a case in which the patient, at his suggestion, consulted Dr. Sayre, who applied partial extension and a plaster-of-Paris jacket. Mr. M——, about fifty years of age, who had been humpbacked from youth, and also had a stiff knee, got crushed between a load of hay and the upper part of the door-casing while driving into a barn. The violence inflicted upon the hump nearly killed him on the spot. From the immediate effects of the injury he recovered after a short time, but was conscious that his back was not as sound as it was before the accident. Not very long afterward he began to experience peculiar sensations in the lower extremities, soon accompanied by impairment of motion, which gradually increased until finally motor paralysis was complete, attended by exaggerated painful reflexes, the jerking of the limbs being so violent as to necessitate fastening his feet and legs to the foot-piece of his chair to prevent them from throwing him to the floor. The bladder and rectum remained unaffected, and the appetite and general condition of the patient were good. The painful violent spasmodic movements of the lower extremities continued for more than a year, and then gradually subsided, although the paralysis of motion existed for about two years and a half, when he came to New York and was carried to Dr. Sayre's office.

The extension apparatus was applied—the patient weighing probably one hundred and seventy pounds—partial extension was made, a plaster-of-Paris jacket was applied, and, after three or four hours the patient was removed to his room, a few blocks away.

While applying the extension the patient had the idea that the more he could bear the better it would be for him, and therefore more extension was made than was *just sufficient to make him comfortable*, he being a man of resolution and willing to do all in his power to aid in the treatment. The result was that on the following morning *paralysis of sensation* in the lower extremities *was complete*. The jacket was divided at once and removed, and, within eight or ten hours sensation was as good as it was before the jacket was applied. Not a little discouraged, the patient resolved to return home, and left the city on the next day, but he carried with him *a definte idea concerning the principle of the treatment*, and had erected over his bed a set of pulleys, by means of which partial extension could be made, and this was practised more or less—gradually, cautiously—according to his determination and decision. It was not long before slight improvement began to manifest itself, which went on, and after a time he was able to walk some by the aid of crutches. At the present time, probably seven or eight years from his visit to New York, he is able to walk nearly, if not quite—his neighbors say better—as well as he could before he received the injury while upon the load of hay.

The case illustrates what can be accomplished, sometimes at least, by an intelligent application of the principle of treatment without support by any mechanical appliance, for he was unable to wear the jacket except in a very imperfect manner.

Dr. Sayre said he remembered the case very well. He also read from a letter just received from a patient in Longfield, Ireland, which sustained the experience in the case just related by Dr. Carpenter. The patient wrote as follows:

"There is one point on which I don't think you dwell enough—the point—the turning-point of the whole. You are so convinced of it yourself, and you have that kind of mind that seizes the main point and does not go fidgeting with petty details.

"*Alpha.* Extension in its ramifications. Suspension to procure spinal extension. Limb: extension produced by lateral pull; both resulting in separation of inflamed surfaces, restoration of normal posture to joint. Putting nature in a handy way of going about her own business, and all resulting in, produced by, and going back to, extension. *Omega.*

"Does it matter one straw how, why, or wherefore extension is made, or what kind of bar of steel, or wall of plaster, or lath, or wood supports the outer surface, when the principle is there?"

TREATMENT OF TAPE-WORM.

Dr. Thomas Wilde presented a specimen of the beef tape-worm, removed completely by a plan of treatment which he had adopted with uniform success in five other cases. The head of the parasite could be seen distinctly. He objects to having the patient fast, and believes that when the intestines are full the likelihood of removing the worm is much greater than when they are empty. Without fasting, then, he orders the following: Two ounces of the bark of the pomegranate root made into a pint of infusion, and taken in the morning, say before eleven o'clock, to be followed in two hours by castor-oil, ℥ iij.; oil of turpentine, ʒ j.; ethereal extract of male-fern, ʒ j.

The Society then went into executive session.

The Limits of Temperature of the Body in Health.—A correspondent asks for the best treatise on clinical thermometry, and says: "My particular question, at this time, is what are the limits as to temperature in healthy persons, so far as has been as yet ascertained? A child, aged five years, under my care had diphtheria in October last. She seems now to be in her usual health. Is very nervous and excitable, with frequent fluctuations in pulse and emotion. No obvious disease anywhere. Every night there occurs a period of depression with low temperature; not with any chill or disturbance of which she is conscious. The thermometer will register at times as low as 95.2°, and many nights it goes nearly as low as that. These periods will last for two or three hours in spite of all we can do. Through the rest of the twenty-four hours the temperature fluctuates, not with any regular periodicity, and never much above normal."

Wunderlich's "Clinical Thermometry" has been translated into English. A large number of references to the subject of temperature in health will be found in "Neale's Digest," page 94.

Correspondence.

OUR LONDON LETTER.

(From our Special Correspondent.)

DR. GEORGE HARLEY AND THE SPELLING REFORM—SOUNDING FOR GALL-STONES—MR. HEATH'S TREATMENT OF FRACTURE OF THE PATELLA—DEATH OF DRS. ANGUS SMITH AND FAIRLIE CLARKE—THE ENGLISH SURGICAL COLLEGE.

LONDON, May 17, 1884.

DR. GEORGE HARLEY is a bold man He has long been known as an able and original physician, but one not quite devoid of whims. He is an advocate of spelling reform, and some time since a medical article from his pen appeared in one of our medical weeklies with the reformed spelling used throughout. Dr. Harley would drop all redundant letters, as, for instance, where double consonants are used he drops one, and *will* he spells *wil*.

As yet, Dr. Harley's eccentricities have been harmless, but he now seems disposed to introduce them into the domain of medicine. On the 13th inst. he read a paper before the Medico-Chirurgical Society, on what he termed "An Easy and Safe Method of Sounding for Gall-stones." The method might be safe for Dr. Harley, but it certainly was not so for his patient, who died of peritonitis. Dr. Harley contended that temporary improvement followed the procedure adopted, but the Fellows present who discussed the paper were almost unanimous in condemnation of the method.

Dr. Harley's patient was a lady aged thirty-six, who had suffered for some weeks from symptoms of obstructed bile-duct. By the insertion (under anæsthesia) of a six-inch French trocar about two inches to the right of the umbilicus and a little higher up, and pushing it upward and backward, its point struck against a hard substance. This he presumed to be a biliary calculus, and to be about as large as a hazel-nut. The trocar was withdrawn, the punctures closed, and the abdomen bandaged. After the operation the signs of obstruction disappeared, and Dr. Harley believes the stone was dislodged. Convalescence began, but was interrupted by an attack of enteritis, and peritonitis ensued, ending in death, twenty-seven days after the sounding. At the post-mortem thirteen calculi were found in the gall-bladder, and the facets on one of them showed that another must have been present and come away.

At last week's meeting of the Clinical Society a short but interesting paper was read by Mr. Christopher Heath on the treatment of recent patellar fractures. Mr. Heath's plan is to apply plaster-of-Paris immediately after the accident. He agreed with Mr. Hutchinson that the old idea that separation depended on muscular action was a mistake, but the difficulty was the fluid in the joint. Mr. Heath aspirated the joint when necessary, but preferred to prevent effusion by enclosing the joint at once in plaster. This needed to be renewed in six weeks, and after three months he applied a leather splint to the knee and thigh. Three patients were exhibited on whom the plaster had been applied within an hour of fracture having occurred, and the result was that in each case there was short fibrous union.

Dr. Angus Smith has recently died. He was well known for his researches on the impurities of air, references to which are to be found in all text-books of hygiene.

I also have to record the death of Dr. Fairlie Clarke. Dr. Clarke was an Oxford graduate, and formerly in London consulting practice as a surgeon. He was attached to Charing Cross Hospital. A small manual of surgery by him achieved some success, and he made some repute by his studies on diseases of the tongue. Fees did not come in very fast, so Dr. Clarke finally determined to quit the arena of consulting practice. This he did about eight years ago. He returned to Oxford to take M.D., and then began provincial general practice. He is not the first whom the *res angusta domi* has forced to quit the ranks of the consultants.

Recent actions of the Council of the English College of Surgeons have given great offence. This body has entirely disregarded the wishes of its fellows and members, as expressed in the late general meeting, and has made up its mind to persevere in the old track. One result has been the starting of an association of "Members" of the College of Surgeons. A society of "Fellows" was instituted a year or two ago, and was the main agent in procuring the concession to country Fellows of voting by proxy at the election of councillors.

The College of Surgeons is true to its own traditions as an obstructive of reform. Members have no voice. Fellows elect the Council, but, as voting by proxy is not yet *un fait accompli*, metropolitan Fellows have it pretty much their own way. The Council has all the authority and its members elect one another alternately to the presidency. I know of no instance on record where the old custom of electing the senior has been departed from. Naturally these old fogies do not wish any deviation from the "good old plan." As for doing anything to promote the dignity of the profession, or put down unlicensed practice, "far be it from them!" The College in Lincoln's Inn Fields has indeed made itself contemptible.

A NEW ABSORBENT DRESSING FOR WOUNDS.

TO THE EDITOR OF THE MEDICAL RECORD.

SIR: In a recent editorial on the subject of "Antiseptic Field Surgery," you allude to Dr. Stevenson's suggestion as to the use of salicylated spongiopiline cut into small squares as a primary dressing. As a substitute for spongiopiline—a very expensive article by the way—I would suggest a dressing which I have been using for some little time as a dressing for operation and other wounds. This consists in the application of a piece of spunk such as the dentists use as an absorbent. This substance I prepare for use by saturating it in a solution of the bichloride of mercury 1 to 200, and afterward drying thoroughly. In the majority of cases the wound is washed thoroughly with a 1 to 1,000 solution of the bichloride—a proceeding which would, of course, be impracticable in primary field dressings; it is then closed, preferably with catgut sutures, and the edges sprinkled with iodoform. Along the line of incision a narrow strip of protective moistened in the bichloride solution is then applied, and over this the sublimated spunk is placed, the dressings being held in place by borated cotton and a bandage. I do not know but the spunk has been used by other surgeons, although I have not heard of its use, but as far as I am able to judge it is the best dressing for all wounds to which it is practicable to apply it. It is cheap, and very easily prepared. It is a splendid absorbent, of close texture, and not impermeable to air—a point of great importance in my estimation, as it is filtration of the air rather than hermetic sealing of the wound that should be sought for. A by no means insignificant feature of the spunk is its elasticity and compactness. Prepared as I have suggested it is a reliable antiseptic dressing, and when properly used, putrefactive changes in the wound-discharges can hardly occur. I have several pieces that I have used in dressing wounds at different times; one in particular, that I used to dress a case of sloughing chancroid simply as a test. All were saturated with blood and pus, yet they became dry when laid away, and at no time has any putrefactive odor been perceptible.

G. FRANK LYDSTON, M.D.
125 STATE STREET, CHICAGO.

VACCINE POWDER.—Reissner and V. Hager urge the use of vaccine matter in the form of a dried powder.

Army News.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, United States Army, from May 18 to May 24, 1884.

WILSON, GEORGE F., First Lieutenant and Assistant Surgeon. Ordered to proceed to Fort Canby, Washington Territory, for temporary duty at that post, relieving Assistant Surgeon W. O. Owen, Jr., U.S.A., who will report in person at these Headquarters for further orders. S. O. 62, par. 5, Headquarters Department of Columbia, May 12, 1884.

STERNBERG, GEORGE M., Major and Surgeon. Relieved from duty in Department of the East, and ordered to report to the Surgeon-General of the Army for temporary duty. S. O. 115, par. 2, A. G. O., May 17, 1884.

MAGRUDER, DAVID L., Lieutenant-Colonel and Surgeon. Ordered to be relieved from duty as Medical Director, Department of the Missouri, and to proceed to Philadelphia, Pa., and assume duties of Attending Surgeon and Examiner of Recruits in that city. S. O. 115, par. 7, A. G. O., May 17, 1884.

FRYER, BLENCOWE E., Major and Surgeon. From Department of the Missouri to Department of Dakota. S. O. 115, par. 7, A. G. O., May 17, 1884.

EWEN, CLARENCE, Captain and Assistant Surgeon. From Department of the Missouri to Department of the Platte. S. O. 115, par. 7, A. G. O., May 17, 1884.

STRONG, NORTON, First Lieutenant and Assistant Surgeon. From Department of the Platte to Department of the Missouri. S. O. 115, par. 7, A. G. O., May 17, 1884.

Medical Items.

CONTAGIOUS DISEASES—WEEKLY STATEMENT.—Report of cases and deaths from contagious diseases reported to the Sanitary Bureau, Health Department, for the week ending May 24, 1884:

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Cases.								
May 17, 1884.....	5	3	86	4	110	42	1	0
May 24, 1884.....	2	5	89	5	123	32	0	0
Deaths.								
May 17, 1884.....	1	2	19	1	13	15	0	0
May 24, 1884.....	4	1	16	4	18	19	0	0

THE FEMALE INSANE CRIMINALS in the Auburn Asylum, N. Y., are in proportion to the males as 1 to 15.

PAINS IN THE COURSE OF THE ULNAR NERVE have been noticed by M. Treille to accompany conditions of nervous dyspepsia. They belong to the phenomena of "exterioration."

SYPHILIS IN THE NEGRO.—The syphilitic negro, says Dr. Henry R. Carter, has oftener enlarged and suppurating glands, rheumatic pains, and synovial inflammations. He less rarely has mucous patches, nodes, and caries.

THE PARENCHYMATOUS INJECTION OF THE ERGOTINE OF YVON IN GOITRE is recommended by Dr. Bauwens, of Alost.

POST-MORTEM INOCULATION OF TUBERCLE.—A house-surgeon at St. Eugénie Hospital is believed by M. Verneuil to have become inoculated with tubercle during a post-mortem examination. The same accident, it will be remembered, occurred to Laennec, but he did not die till twenty years later.

A CASE ILLUSTRATING THE COURSE AND TREATMENT OF TRAUMATIC TETANUS.—Dr. Louis Kolipinski, of Washington, D. C., sends us the history of a case of traumatic tetanus occurring in the service of Dr. Johnson Eliot at the Children's Hospital. The patient, a child, aged seven years, had been kicked in the face by a horse about two weeks prior to the onset of the symptoms. The convulsions were general, and at first occurred ten times daily. By the end of a week they were reduced to two daily, or less. It was over four weeks before the child was entirely free from them. Bromide of potassium, chloral, Calabar bean, and whiskey were used in large doses, and with evident effect, as shown by a carefully prepared chart which Dr. Kolipinski has sent us: "There was used during the treatment 720 grains of chloral, 960 grains of potassium bromide, 2 fluidrachms of fluid extract of Calabar bean, and 38 fluidounces of whiskey. The patient was seen in daily consultations by the gentlemen of the Consulting Board and the attending medical staff of the hospital. As points of interest in this case were: 1, involvement of the upper extremities; 2, no constipation; 3, the facial paralysis; 4, no evening rise of body heat, and the almost normal temperature which was present after the sixth day. The evening increase, which Dr. Ogle says occurs in tetanus, appears hence to have been prevented by the remedies, and seems to show that they influence the tetanic contractions, which, in part at least, are the cause of the elevation. As this observation was made on but a single case, it yet remains to test its accuracy."

"THE AMERICAN JOURNAL OF OPHTHALMOLOGY" is the title of a new monthly periodical published in St. Louis, and edited by Dr. Adolf Alt in conjunction with a number of other representative specialists. The first number contains only original articles, most of them being interesting and valuable.

THE BACILLUS QUESTION.—At a meeting of the Cincinnati Medical Society, March 25th, Dr. Sattler said that while no bacilli were found in the breath of phthisical patients, yet plates of glass covered with glycerine and hung in consumptive wards became covered with bacilli.

REMOVAL OF BOTH OVARIES TO PREVENT LOSS OF VISION.—Dr. Priestley Smith, in the *Ophthalmic Review*, details a most interesting case of a young woman suffering from blindness, and relieved by removal of the ovaries. The patient was a married woman, aged twenty-four. She had suddenly and completely lost the sight of the left eye after a fainting fit, consequent upon ovarian or uterine disease, as it was preceded by pain in the pelvic region. Subsequent attacks of the same nature affected the right eye temporarily, its field of vision becoming permanently lessened. The retinal arteries of the left eye were shrunken and the disk pale. The ovaries and Fallopian tubes were removed, both being diseased. Vision was restored in the right eye.

A FORMULA FOR USE IN IRREGULAR HEART ACTION.—In a discussion upon heart disease before the Boston Society for Medical Improvement, Professor Bowditch said that he had found the following formula of great service in relieving even the most serious cardiac affections. He had used it for the last twenty-five years: ℞. Pulv. digitalis, gr. x.; pulv. colchici sem., gr. xx.; sodii bicarbonatis, gr. xxx. M. et div. in pil. viginti. One of these is to be taken three or four times daily at first; subsequently to be reduced until only one is taken at bedtime; the treatment to be continued from three to nine months.—*Boston Med. and Surg. Jour.*

ANOTHER CASE OF CHLOROFORM NARCOSIS DURING SLEEP.— Dr. John Gray, of Trufant, Mich., writes: "Much has been said through the columns of your excellent journal regarding chloroform narcosis during sleep. Therefore I beg to relate my limited experience. Sybil C——, aged three years, having received an injury which required a minor surgical operation, I decided to administer chloroform while she slept. Suffice it to state that my little patient inhaled the anæsthetic, with scarcely a move, to complete narcosis."

A CASE OF PEDUNCULATED TUMOR OF THE LABIUM MAJUS.—Dr. R. Osgood Mason, of this city, writes: "At a meeting of the Pathological Society, held April 9, 1884, Dr. H. Q. Garrigues presented a specimen of 'pedunculated myxofibroma of the labium majus;' and his remark on the occasion, that 'pedunculated tumors hanging from the labia are probably rather rare,' leads me to report the following case taken from my note-book, 1876. C. Q——, forty-five years of age, native of Ireland, married, still menstruates regularly. Two years ago she noticed a "pimple" on the left labium which gradually increased to the size of an orange. Two months ago she came to this country, and since that time the tumor has increased very rapidly, has become painful, and prevents her walking or attending to her household duties. It also has an offensive ulcer the size of a silver dollar upon the most dependent portion. The tumor is large and globular in form when held up, but lying on the bed it flattens out and presents a most striking resemblance to a placenta. It has a pedicle two inches or more in length and as thick as two fingers. There was very slight pulsation, but to guard against hemorrhage I passed a double ligature through the pedicle and removed the tumor with a pair of stout scissors. It measured eighteen and a half inches in circumference as it lay flat upon the table, and weighed two pounds. Unfortunately, it was not examined microscopically."

OPEN DUCTUS ARTERIOSUS AND AORTIC STENOSIS.— Dr. Alfred Meyer, of this city, writes: "In the proceedings of the New York Pathological Society of March 12th, as reported in your issue of April 12th, there is recorded a case of malformation of the heart, presented by Dr. L. Emmett Holt. In his remarks upon the specimen Dr. Holt says he has never seen recorded open ductus arteriosus and foramen ovale and hypertrophy of right ventricle as associated lesions of aortic stenosis. In connection with a case of congenital malformation of the heart published by me in THE RECORD of April 21, 1883, I had occasion to examine the literature of the subject, and came across the following cases by Wasastjerna: (1) Female, thirteen years, slight stenosis of aorta near ductus arteriosus, ductus arteriosus open, hypertrophy of both sides of heart, especially of right; valves normal; no endocarditis; no mention made of foramen ovale. (2) Male, thirty-six years, slight stenosis of aorta at point of entrance of ductus arteriosus; ductus arteriosus open; hypertrophy of right and left ventricles; left more than right; valves, ostia, and septa normal (*Prager Viertelj.*, vol. cxxxii., Anal., p. 39; also *Schmidt's Jahrb.*, 1876, Bd. 169). Both of these cases very nearly resemble Dr. Holt's, differing only in that the foramen ovale was closed, as far as can be learned from the published report; but in Dr. Holt's own case it was also practically closed, according to his own description of it. In support of the rarity of this combination of pathological changes, I may add that the above two are the only cases of the kind which I found among 139 cases of congenital heart disease reported in the past fifteen years.

PRACTICAL TESTS OF HOMŒOPATHY.—A correspondent asks us when and where homœopathic therapeutics has been tested clinically in hospitals. We refer him to the controversial works on this subject, also to Dr. Holmes' article on Homœopathy, and to the article in the "Encyclopædia Britannica."

PILOCARPINE IN HICCOUGH.—Dr. W. C. Pipino, of Mexico, Mo., reports another case (*St. Louis Courier of Medicine*) in which a hypodermic injection of pilocarpine cured an obstinate case of hiccough.

DARWINISM AND CIRCUMCISION.—A correspondent writes: "The only explanation I have ever heard given by a scientific man to the fact of Jews continuing to be born with foreskins, is the witty repartee, attributed to Professor Huxley, who immediately answered the question, when propounded by a country clergyman, with the quotation, 'There's a divinity that shapes our ends, rough-hew them as we will.'"

THE PASSAGE OF A PENNY THROUGH THE BOWELS.— Dr. Samuel W. Francis, of Newport, R. I., writes: "An interesting case is reported in your journal of a penny accidentally swallowed being discovered in the 'fecal passage' six months after. This is not always the case; for a young patient of mine swallowed a nickel cent one morning. An emetic, administered soon after by me, not bringing it up, I gave a large dose of castor-oil, when she passed the penny before the twenty-four hours were over. On another occasion, a little girl, about six years old, swallowed a glass marble. I saw her some two hours after, and having tried an emetic without success, I administered a cathartic, which caused her to pass the marble in some ten hours from the time that she had swallowed it. The size of the penny and its lodgment, may have caused the delay in Dr. Ten Eyck's case."

ERYSIPELAS IN INFANTS FROM THE SCRATCH OF A PIN.—Dr. M. J. B. Messemer, of this city, deputy coroner, sends us the following notes: "A nurse, in changing the diapers of a male child, eight months old, accidentally pricked its skin with a diaper pin. Traumatic erysipelas set in, and four days later the child was dead. A mother, whilst fastening the bandage about an infant two weeks old, accidentally scratched the skin with an ordinary pin. Traumatic erysipelas set in, and the child, which was otherwise healthy, died from the effects of the erysipelas in forty-eight hours."

THE CAUSE OF SUDDEN DEATH IN GANGRENE OF THE HAND OR ARM.—Dr. M. J. B. Messemer writes: "Frequently patients suffering from gangrene of the right hand or arm die suddenly. I have found in a number of cases that the cause is the gangrene which follows an injury to the right hand or arm, or frost-bites will send its gases along the veins of the arm into the vena cava and right side of the heart, and as soon as the gases reach the heart death results from collapse or syncope. On cutting into right side of heart a puff of gangrenous gas can be plainly smelt."

NOTES ON THE ETIOLOGY AND TREATMENT OF TONSILLITIS.—Under this head Dr. W. H. Dukeman, of Olean, N. Y., sends us a brief communication. Dr. Dukeman thinks that "tonsillitis is a local disease, to which certain persons are predisposed. Its exciting cause is the vitiated air of houses or exposure. Acute attacks can be successfully treated or aborted, in his experience, by aconite and gray powder in small doses. The chronic form can be successfully and rapidly cured by electricity. In chronic cases the aconite treatment is of no avail. I also have tried astringents and escharotics, put my patients on good tonic treatment, and have scarified the glands to relieve the chronic congestion. But the results were unsatisfactory. I then thought I would try the use of electricity, and in this agent I found a remedy which gave perfect satisfaction and speedy cures. I use the galvanic battery, and place the sponge electrode of the positive pole on the back of the neck, and the metal tonsil electrode of the negative pole on the tonsil. A mild current is used for from five to thirty minutes every few days. In some cases where the tissues are much relaxed, I use in connection the primary faradic current."

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Original Articles.

THE TREATMENT OF SCIATICA BY THE STRONG GALVANIC CURRENT.[1]

BY V. P. GIBNEY, A.M., M.D.,
NEW YORK

THE treatment of sciatica is a subject in which the practitioner always feels a deep interest, and the knowledge of this fact induces me to seek a manifestation of that interest this evening. A discussion is what I specially desire, and while my title would direct your remarks to the strong galvanic current as a therapeutic agent, I am far from desirous that you should confine the discussion to any one agent. If my own preference for galvanism stands out conspicuously, it is because I have been fortunate enough to ensure permanent relief to the greatest number of sufferers by this one agent, and because I have been able to bring about that relief in the shortest space of time.

I would not have you infer, however, that I have not employed other means, and that I have not secured good results by the same. Next to galvanism the thermo-cautery has served me best. Fowler's solution of arsenic, in the way of drugs, has yielded an occasionally brilliant result. The hot-water douche, the faradic current, and the static electrical machine are all familiar to me as agents that sometimes afford prompt and permanent relief.

The present remarks I shall make must not be considered as a new paper, or as, indeed, an old one. I have already on two former occasions presented this subject, fortified by statistics and instructive cases. Before the New York Academy of Medicine, February 6, 1879, I presented my first paper, and detailed the histories of fifteen cases, all of which were published in the *American Practitioner*, in March and April of the same year. Before the American Medical Association, which met in New York in 1880, I presented my second paper, and gave the results of thirty-two cases, subsequently published in the Transactions. These were statistical papers, and the present one is prepared more as confirmation of my faith in the efficacy of the strong current, and as a means of offering explanation of the failures the plan has met with in the hands of other practitioners. Occasionally a medical friend tells me that he can't get the results I get. In my hospital service, where I have abundant opportunity of drilling new men, I find very often reasons of failure. I think, therefore, I am prepared to answer the objections that may be offered, and the freest criticism is invited.

Before one can judge of the value of any given therapeutic agent, a knowledge of the natural history of the disease under consideration is indispensable. It is equally important, too, that diagnosis should be at one's fingers' ends. Time and again I have heard some orthopedist say that he is treating a case of hip-disease which some other doctor had treated for sciatica. Ordinarily there is no difficulty in making a differential diagnosis. Errors in diagnosis come, as a rule, from neglected examinations. Men grow too self-reliant, place too much value on their supposed power to make a diagnosis from a few symptoms given. Let one make a physical examination, compare the functions of the two hips, search for tender points, learn the distribution of the pain, the history of paroxysms, etc., then errors will be very infrequent.

Given, then, a case of uncomplicated sciatica, acute or chronic, the treatment by the strong current, I am convinced, by still further clinical observation, will effect a cure in a short time. I am not referring specially to acute cases, but I have in mind those of long duration wherein the exacerbations are frequent and very severe. The intermissions, we all know, are often marked by almost complete relief from suffering of any kind, while in many instances the pain is constant during the waking hours. There is always a dull, heavy pain, aggravated by exertion, by temporary excitement, and by exposure. During the exacerbations the pain may be excruciating. Sciatica which is symptomatic can often be recognized by a careful examination.

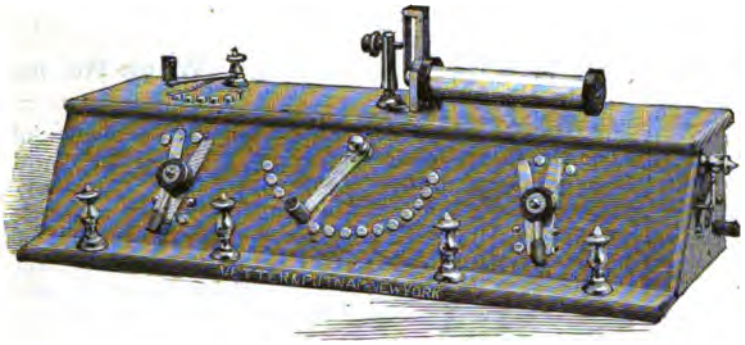
I wish now, before going into the details of the treatment, to reaffirm that when rheumatism unquestionably stands in a causative relationship, the galvanic current, in my experience, only aggravates the pain, while the faradic or the static current will give decided relief.

The kind of cell that I have employed and still employ is the Leclanché cell, and I am forced to the conviction that the current from these elements is *less painful*, and exercises a more soothing influence on the nerve than that from any cell with which I am acquainted. Just why it is so I cannot tell. Some of my friends who have followed the methods I advocate tell me that the pain they induce is simply intolerable, and on investigation I find that the battery used was the ordinary portable bichromate battery in such general use. I have myself on a few occasions employed such a battery, and my patients complained bitterly of the pain, while I find it exceptional for them to complain when I employ the Leclanché current. Not that there is no pain—far from it—but it is an endurable pain, and so mild compared with the suffering induced by the neuralgia that it is borne with a kind of satisfaction. The idea that a Leclanché battery must be expensive prevents its general use. Yet I am quite sure that many of our neurologists have come to regard this as the least expensive in the end. It seldom gets out of repair, the connections are simple, and one soon becomes familiar with the strength of the current desired. The chief objection to the practitioner is that portable batteries are not constructed with these elements, so many being necessary to the strength one needs. Again, too, in the permanent batteries so many accessories are attached by electrical instrument-makers that the expense and the complications get to be decided objections.

For several years I have used only a current selector made of plain walnut, on the face of which is a dozen or so nickel-plated buttons, and arranged in a circle, while the winch is arranged like the radius of a circle. Each pin represents three or more cells, and the only galvanometer employed was my own hand. A polarity-changer is not necessary. In order, however, to make the battery useful for diagnostic purposes in nervous disease, I have had a very simple polarity-changer attached. Mr. Vedder, of Messrs. Vedder & Putnam, has, at my suggestion, placed in my office a very serviceable machine, and at a comparatively small cost. The cells are arranged in an open book-case on the lower shelves, while on the second shelf from the top the current selector, as represented in the accompanying cut, is placed. A

[1] Read before the Practitioners' Society, May, 1884.

faradic machine attached to the right-hand side of the framework, and supplied by two of the Leclanché cells, is also here represented, giving a very complete instrument for the treatment of the various kinds of neuralgias.



The patient can stand, or lie on a couch, as one prefers, while the operator places the electrode from the positive pole over the exit of nerve from the sacro-sciatic notch. The nerve-trunk can be readily found by placing one thumb over the tip of the trochanter major, the tip of the middle finger (same hand) over the tuber ischii, when the tip of the index-finger fully extended will fall directly over the nerve. If now deep pressure with the index-finger thus located be made, tingling sensations in the superficial and remote distributions of the nerve will be felt. If you do not get these sensations the finger should be moved from side to side and pressure made again. Often some little time will be required to find the nerve, and when once found a mark should be made on the skin for the application of the electrode. So much in detail for the placing of the electrode of the positive pole. Make now deep pressure here, and place the other electrode over some one of the nerve-points along the limb, preferably in the locality of greatest pain. If the patient wince much or complain of pain, diminish the number of cells in the circuit, but if not, then increase the number up to the toleration point. If now the current is passing through the nerve referred sensations—paræsthesiæ—will be felt in its distribution. These referred sensations must be obtained or the treatment is inoperative. To get them it is necessary often to move the electrode (from the negative pole) about from point to point, and when secured then hold both electrodes absolutely quiet, making use of the "stabile method." We want a constant current, and the "labile method" does not secure this. It not infrequently happens that I find in my dispensary practice an incredulous assistant applying the current without ever getting these "referred sensations." The electrodes are of the usual size—sponges on metal disks—from three-quarters to one inch in diameter for the one over trunk of nerve, and a larger one for the thigh.

I am thus particular in giving these points because we all know how results turn on the minutiæ of practice, and I have had many assistants who were baffled in their attempts to get the good results others of their number and I have obtained. By and by they give attention to details, and they are then delighted with the relief the patient experiences. Time and again I have had one of the more recent members of my staff, fresh from college, come into my examining-room and say, "Doctor, I have just succeeded in getting the tingling sensation in Mrs. So-and-so's case, and she says she feels like a new woman." Sometimes I find a man working along mechanically from day to day without any idea of art, and it is a long while before he appreciates the value to himself of the hospital position he holds.

Let me now outline the treatment of a given case—a classical case.

The patient has suffered for two or three years almost continuously with an exacerbation now marked by paroxysms coming on every two or three hours. He is able to walk only when well supported, and even then the greatest care must be exercised. I have the posterior half of the limb well exposed, seeking, in the manner above described, for the nerve-trunk, after it has emerged from the pelvis, mark the skin overlying, and apply my electrode. Before this procedure, however I will have made myself familiar with the current I am to employ, and turn the winch so as to include about eighteen or twenty-one cells in the circuit. The positive-pole electrode having been placed at the desired point over the gluteal region, I ask the patient to indicate with his hand the locality of greatest pain. This will usually be on the posterior aspect of the thigh, near the popliteal space; sometimes about the ilio-femoral crease, sometimes below the popliteal space. Here I place my other electrode, and then turn on more cells until the patient tells me that he can stand no more. After getting from twenty-seven to thirty-three in the circuit, my limit will usually have been reached. Then, by moving about in a small area my negative-pole electrode, I am to get the paræsthesiæ of referred sensations. These being obtained, my electrodes are held securely for ten or twelve minutes, during which time the patient will tell me how warm the sensation is, but at the same time tell me it is preferable to the "old pain." When I am ready to close the séance, I get the patient to hold the handle of the upper electrode while I turn the winch backward, so as to remove the cells from the circuit. I am now ready to remove both electrodes, and without any shock.

The skin against which the sponges have been pressing is quite red, and occasionally presents a few small vesicles. The patient gets up and begins to move the affected limb, finding to his delight that he can move it about with much greater ease. He walks out of the room with much more facility than he expected. Next morning he returns for another application, and reports that he felt very nearly well all day until toward evening, when a pretty sharp "attack" of pain came on, but it did not last long. Then toward morning he had another "attack," which lasted up to his present visit.

I repeat the "dose," and find that he can bear a little stronger current. Next morning he comes reporting only a single paroxysm, perhaps not any.

I go on with the application daily for a week or ten days, finding my patient steadily improving, the paroxysms reduced to a minimum, and even when they do appear their force is insignificant. My aim in treatment is the same that I would aim to get in treating a case of epilepsy, viz., break up the paroxysms (fits). I usually am able to do this effectually in about a fortnight, and then I discharge the patient. Sometimes the treatment will extend over a period of six or eight weeks, but this is the exception, and generally argues for an error in the diagnosis or a faulty mode of applying the electricity.

I direct now the patient to report to me promptly on the recurrence of any paroxysms or another exacerbation. On tracing out my patients thus relieved, *i.e.*, those that do not return, I find that they have either not had a return of the pain, or a return which gave them very little annoyance, not enough, in fact, to require treatment, especially as it passed away very soon. A few who can spare the time do return and get about half-a-dozen séances more.

These suffice, and I have traced out enough cases, the final results of which I know to enable me to state that a very large per cent. are cured. I have not tabulated my later cases, but aimed to make this paper which I now present a plain statement of the methods employed.

To sum up, then: 1st. A differential diagnosis should be made between a sciatica depending on a rheumatic diathesis and one of purely idiopathic origin. The former will yield to faradism or static electricity, and will be

aggravated by galvanism. The latter will be relieved by galvanism and aggravated by faradism. 2d. Daily applications of from ten to fifteen minutes each, care being taken to include the nerve in the current. 3d. The Leclanché elements give the best result. 4th. If no marked relief be obtained after a half-dozen applications, the diagnosis had better be carefully reviewed.

OUR KNOWLEDGE OF THE CAUSES OF DISEASE.[1]

By H. GRADLE, M.D.,

CHICAGO, ILL.

The Chairman of the Committee on the Report of Medical Practice has thought best to divide his subject into several parts, each of which has been assigned to a seperate contributor.

In this connection the present paper is to present to the Society the progress during the past year in our knowledge of the causes of disease.

In the field of etiology increased energy has been manifested since several years, and has been so well directed that this department promises to speedily become one of the clearest and best known of the medical sciences. The cloud of mystery hitherto obscuring the causes of disease is rapidly being dispelled, and every new discovery brings us nearer to the time when correct insight into the causes of disease will help us to combat them more successfully.

A mere citation of the various discoveries during the past year might not command the interest which the facts deserve. Hence I have thought best to produce a scheme of classification as a framework upon which the separate topics could be assigned their places in logical connection. A survey of the field is thereby facilitated, and what may be sacrificed in brevity will, I hope, be gained in clearness.

This classification of the field, intended to systematize the search for the causes of disease, claims no originality. But while its basis has been perhaps tacitly acknowledged by everybody, its importance in etiology has never been pointed out, and, as far as the writer knows, the system as a whole has never been used.

With reference to the causes of disease a distinction can be drawn between (1) *primary diseases* and (2) *secondary disturbances*. A primary disease can be considered as the direct reaction of the living body, or any part of it, to some foreign influence of external origin sufficient to disturb the normal play of physiological processes. A secondary disturbance, on the other hand, is some disturbance of the normal processes due to a pre-existing primary disease or primary lesion or structural anomaly anywhere in the body. The type of a primary disease is represented by any infectious disorder, or by a traumatic fracture or a burn. In any of these instances the part of the organism suffering is the part directly affected by the cause of the disorder. An example of a secondary disturbance is the paralysis due to the embolism of a cerebral artery, the embolus itself being derived from a previously diseased cardiac valve. Here the secondary disturbance, serious enough, if not fatal, is not due to any fresh external cause acting upon the brain, but depends upon a pre-existing lesion. In primary diseases the cause can be traced to the outer world, while in secondary disturbances the etiological research is to be directed to some anomaly already existing in the body, possibly at quite a distance from the part involved. The utility of the distinction here maintained is not lost by the unfortunate fact that the present state of medical knowledge does not permit it to be carried out in all cases.

1. The etiology of *primary diseases* will gain in clearness by distinguishing between *the one exciting cause* and the numerous *predisposing conditions*. As far as our actual knowledge goes, every distinct morbid condition which can be analyzed as a single uncomplicated disease is due to but one external exciting cause, though what appears clinically as one continuous disease may sometimes really be a series of separate reactions to separate causes.

The term predisposing causes can be dropped to advantage as illogical, although predisposing conditions, partly in the external world, more so in the latitude of our physiological factors, must be recognized as aiding the exciting cause. But such predisposing conditions, either singly or all together, cannot produce a disease, and should hence not be called the causes of disease. By way of illustration let me quote erysipelas following in the course of a wound. The only direct exciting cause of the disease is the erysipelatous virus, yet the existence of the wound must be admitted as a predisposing condition, facilitating the entrance of the poison into the body. But that the wound itself cannot cause erysipelas is a fact no longer admitting any discussion.

Our knowledge of the exciting causes of primary diseases is limited to three classes, namely: A, physical influences; B, chemical action; C, parasites.

In the range of physical influences, comprising mechanical violence and the direct effect of extreme heat or cold and intense electric currents, no addition has been made to our knowledge during the past year. But the results attributable to these physical influences are being more closely observed, in illustration of which might be quoted the warning by Luecke[1] that the side-strap stocking supporter worn by children can be the cause of knock-knee.

The chemical causes of disease include the actions of all poisons, using that term with the utmost latitude. The subjects to be treated under this head would also appear in a report upon therapeutics and toxicology, and may hence be here omitted. Among the chemical influences we should also refer to their negative effects—*i.e.*, the result produced upon the body by the deprivation of any of the substances forming part of our tissues. No new additions to this topic have come to the notice of your reporter.

The third class of disease causes, and by far the most important in frequency, viz., parasites, is the one as yet viewed with too much distrust. That the first hasty and insufficient endeavors to trace these causes were received with caution was but natural and proper. But the case is now different. Modern methods used in this line of research are as accurate as those of any experimental science, and the facts developed thereby rest on as firm a basis as any in medicine. Still, the view that a great many diseases represent a struggle of the organism with parasites invading it, meets with constant and often blind opposition. But it is a noticeable fact that in the discussions on this topic or the germ theory in general, be they in the Academy of Medicine of Paris or of New York, or in some provincial society, the "germ enthusiasts," as they are called, start from demonstrated facts and appeal to logic, while their opponents invariably betray no familiarity with the actual facts and appeal to sentiment.

The proof that a disease is of parasitic origin requires the demonstration of the parasites, in all cases of the disease, to an extent commensurate with the extent of the morbid lesion and the reproduction of the typical disease by inoculation with the isolated parasites. When these proofs are given the relation of cause and effect is just as plain and certain as it can be in a case of poisoning by a drug. In all the tirades against the germ theory no one has yet suggested or demanded any better proofs of the significance of parasites than the fulfilment of the above requirements.

Perhaps much of the opposition to the germ theory may be due to the difficulty of some in keeping up with the rapid advances of medical knowledge. Ten years

[1] Read before the Illinois State Medical Association, at the Chicago meeting, May, 1884.

[1] Centralblatt f. Chirurgie, March 8, 1884.

ago no absolute proof had ever been furnished that any diseases of man could be due to the invasion by vegetable parasites. In anthrax, relapsing fever, and the surgical infections bacteria had been seen with some constancy, but their importance could only be suspected—it had not been demonstrated beyond doubt. One year ago this day unimpeachable proof of the parasitic origin had been furnished in the case of anthrax, tuberculosis, suppurative inflammation, erysipelas, and tracheoma of man, and of glanders, symptomatic charbon, chicken cholera, swine plague, and some half a dozen experimental affections of animals. In relapsing fever, leprosy, pneumonia, pyæmia, and typhoid fever, characteristic bacteria had been found with regularity, but their significance had not been proven experimentally.

During the past year the micrococci found invariably in the lung in *croupous pneumonia* have been cultivated outside of the body, and with these isolated parasites the disease has been produced in animals by injections into the lungs, and what is more striking, by inhalation.[1] These researches have rendered it likely that croupous pneumonia and pleurisy may be due to the same parasites, the effect depending on their localization.

In *osteomyelitis* micrococci had previously been found in the diseased parts. Their invariable presence has since been confirmed by several observers, and it has been found possible to produce in animals similar affections of bones by inoculation with the isolated micrococci.[2] Their invasion of the bone, however, depended on some injury to that structure, without which they could not gain a foothold in bones. The injury by itself could not produce osteomyelitis, but it was an indispensable predisposing condition.

The splendid work done by Koch on the cause of *cholera* has received wide publication by the various translations of his letters to the German Government. In numerous autopsies he has invariably found a small bacillus in the walls of the intestines during the active stage of cholera. Neither in his extensive previous work nor in his additional experience gained in Egypt and India has he ever met with this micro-organism in cadavers dead from other diseases. His experiments intended to produce the disease in animals failed, because no animals could be found susceptible to cholera. Though he could not complete the proof that this bacillus is the cause of the disease, this view has been brought to the utmost degree of probability, by reason of the invariable presence of the bacillus in cholera and its absence in other diseases and in health. This view, moreover, agrees with all facts known of the etiology of cholera. The French commission sent to Egypt for the study of cholera has likewise found this bacillus in the intestines, although, it is claimed, not in the first stages. Its report[3] differs, moreover, in some other details from that of Koch. But this commission has not given sufficient evidence as yet of the trustworthiness of its work.

The presence of characteristic bacilli in the intestinal lesions and in the internal organs of *typhoid fever* patients has been again investigated in Koch's laboratory.[4] The results of former authors have been more than confirmed, for by means of better staining methods it was shown that the bacilli are never absent during the active stage of the disease. They possess such characteristics of shape and growth that they can be distinguished with certainty from the micro-organisms of other diseases. Their cultivation outside of the body was found an easy task, so that there is good prospect of their early identification in suspicious water and soil. But since no animal was found susceptible to typhoid fever, the experimental reproduction of the disease by means of the bacilli could not be accomplished. Yet the occurrence of these bacteria is so typical, and agrees so closely with what we ought to expect in the disease from what we know of its pathology, that there can be no doubt of their etiological relation to typhoid fever.

In the etiology of *diphtheria* a greater advance has been made during the past year than ever before, again in the laboratory of the German Board of Health.[5]

But the results in this disease have not been quite as positive as in the instances above mentioned. A bacillus was found in the deeper strata of the pseudo-membranes, not entering, however, into the living mucous membrane. This bacillus, isolated by means of cultivation, produced in animals diphtheritic pseudo-membranes with general involvement of the health of the subject. The intense effect which could be obtained by a rather limited vegetation of these bacilli suggested that they form some acrid soluble poison. But while the experimental study of this micro-organism plead in favor of its relation to diphtheria, it could not be found in every case of the disease in man, possibly by reason of its early elimination. Its significance has hence not been established beyond doubt. It was learned, furthermore, that diphtheria is rarely an uncomplicated disease, but that through the diphtheritic lesion there enters very often at least one other variety of micro-organisms. This, a micrococcus forming chains, produced in animals an inflammatory reaction but not a diphtheritic change. It could not be distinguished by its growth or its effects from the micrococcus of erysipelas.

An eye disease known as *xerosis of the conjunctiva*, which occurs at times in epidemics, especially in institutions for children, has been traced to the vegetation of bacilli in the conjunctiva.[6]

The disease could not be reproduced in animals, but the pathogenic character of the bacilli was shown by the changes which their elimination produced in the kidneys of the patients, viz., a desquamation of the epithelium similar to that on the surface of the conjunctiva.

In *puerperal peritonitis* micrococci have been found in several instances in the affected parts, which on suitable inoculation gave rise to similar affections in animals.[7]

Pasteur's researches on *hydrophobia* have shown that this disease is due to the virus which multiplies in the body of the animal and localizes itself largely in the central nervous system. The nature of the virus, however, could not be determined.[8]

The unrivalled work of Koch on "Tuberculosis" has been published in full during the past year.[9]

It stands without parallel in the annals of medicine for accuracy of method, perseverance in the work, and caution in the interpretation. The outcome of the extensive work is that in all tubercular lesions the bacilli precede the structural change, increase in number so long as the lesion grows, but ultimately die or form spores, whereupon the process ceases to be progressive; and that in all the domestic warm-booded animals the isolated bacilli produce the form of tuberculosis characteristic of the natural disease as it occurs in that species. On reading Koch's original article no one can hesitate to admit that the relation of the bacilli to the disease is as definitely established as in any other disease of bacterial origin. From Koch's work and its confirmation by many other authors,[10] it is certain that the tubercular virus gives rise to various reactions not hitherto considered tubercular. The presence of the characteristic bacilli in *scrofulous glands* and in *lupus*, as well as the proven infectious properties

[1] Friedlaender, in Fortschritte der Medicin., November 15, 1883, and independently of him, Talamon, in Progrés Medical, No. 51, 1883.
[2] Becher's researches on osteomyelitis, made in the laboratory of the German Board of Health, appeared in the Deutsche Med. Wochenschrift, No. 46, 1883. They were confirmed in independent publications by Rosenbach, Centralblatt f. Chirurgie, No. 5, 1884, and Krause, Fortschritte d. Med., Nos. 7 and 8, 1884.
[3] Straus, in the proceedings of the Societé de Biologie, November 10, 1883.
[4] Gaffley, in Wittheilungen a. d. k. Gesundheitsamte.
[5] Loeffler, in Wittheilungen a. d. k. Gesundheitsamte.
[6] Kuschbert and Meisser, in Centralblatt f. Augenheilkunde, June, 1883, and Leber, in Archiv f. Ophthalmologie, vol. xxix., No. 3, p. 225.
[7] Fraenkel: Deutsche Medicin. Wochenschrift, No. 14, 1884.
[8] Bulletin of the Academy of Medicine, February 26, 1884.
[9] Wittheilungen a. d. k. Gesundheitsamte.
[10] On scrofulosis, see Domme, Berliner klin. Wochenschrift, No. 15, 1883; Kanzler, idem, No. 2, 1884; Schuchard and Krause, Fortschritte d. Medicin, No. 9, 1883. On lupus, consult Pfeiffer, Berliner klin. Wochenschrift, Nos. 19 and 28, 1883; Doutrelepont, Centralblatt f. Chirurgie, No. 9. 1884; Cornil, Progrés Medical, No. 31, 1883.

of these diseased tissues, force us to the conclusion that the reaction of the tissues—*i.e.*, the form of disease to which the tubercle bacilli give rise—varies with the power of resistance and other conditions of the tissues involved. This statement does not mean that we are to consider scrofulosis and lupus as identical in the clinical course and in the prognosis with the common form of pulmonary tuberculosis. It means simply that the three diseases have the one exciting cause in common, viz., the growth of the bacilli. If this does not agree with the hitherto conceived notions, it is time to drop those notions as incorrect.

In various other diseases vegetable parasites have been found by reliable authors, but the instances are as yet too isolated, so that experimental proof being wanting, we cannot consider the results as more than suggestive.

The search for the parasites of various disorders has brought to light the fact that some affections which appear clinically as one continuous disease are really mixed infections due to the invasion of several forms of micro-organisms. Such invasions are rarely simultaneous; more often one parasite paves the way for the other, either by creating a lesion through which the other may enter, or by lowering the power of resistance of the body. Such mixed infections have been shown to occur in typhoid fever, diphtheria, and in disorders commonly termed pyæmic. There is strong reason to suspect that such occurrences are not uncommon in other diseases.

Predisposing conditions include both the influences determining the mode of life and distribution of disease-germs outside of the body, and the influences which may alter the resistance of the body to their invasion. Under the first heading the most important question is, whether the micro-organisms causing a given disease can vegetate under the conditions as they occur in nature outside of the body, or whether they are limited to a purely parasitic mode of life in the bodies of animals; for on the answer to this query depends the nature of our prophylactic measures. The bacillus tuberculosis has been shown to be a true parasite. It cannot live outside of the body except under the artificially produced conditions of our culture experiments. On the other hand, the parasites of anthrax, erysipelas, pneumonia, typhoid fever, cholera, and presumably all forms of suppurative inflammations, can readily vegetate in organic refuse. What bearing this has on the mode of infection in these diseases has been shown in several instances. In an epidemic of cholera limited to the banks of a pond, or, as it is called by the natives, a tank, near Calcutta, Koch has detected the unmistakable cholera bacilli in the water of the tank after having failed to find the bacilli in other localities where no cholera prevailed. The inhabitants had used this water for drinking as well as for every other purpose, and thus the lacking experimental proof of the significance of these bacilli was furnished in a wholesale experiment costing no animals, but at the sacrifice of over a dozen human lives.

In a prison at Amberg, in Bavaria, a house epidemic of pneumonia had prevailed for some time. The space between floors and subjacent ceilings had originally been filled with loam saturated with organic refuse. In this filling Emmerich[1] found, by means of culture experiments, the micrococcus of pneumonia characterized by its mode of growth and power of producing the disease in animals. In the filling of other non-infected localities this micro-organism could not be detected.

While numerous attempts have been made to trace the origin of typhoid fever to infected wells, no results yet published are quite as precise as those obtained by Gaffley[2] in an epidemic occurring among a body of soldiers. There was no interpretation possible of the facts in that case but that the typhoid germs had filtered through the soil from a cesspool containing typhoid stools into an adjoining well, the water of which had been used by all the patients. An attempt to demonstrate the presence of the specific bacilli in the water proved unsuccessful on account of the arrival of the observer at a time when fresh infections had ceased.

Upon the important topic how atmospheric conditions can influence the distribution of germs or favor their invasion into the human body, no further light has been thrown during the past year. In Koch's laboratory Hesse[1] has devised ingenious methods for the quantitative and qualitative analysis of the living floating matter in the air, but has not yet had time to apply these methods on any extensive scale. A mode of research which, it is safe to prophecy, will throw much light upon this subject has been taken up by some English physicists.[2] Starting from the fact that a beam of light shows the air on the surface of warm bodies to be free from dust, they have learned that the atmospheric dust is repelled by warm surfaces, but can settle more readily on bodies cooler than the air. The deposition of floating matter occurs quickly, however, on electrifying the dust, whereby it collects in larger masses, which are not prevented by the resistance of the air from settling. Hence lightning clears the air by causing the dust to settle. These researches have also taught us more about the manner in which aqueous vapor will form a mist by condensing on the floating particles, thereby hastening their deposition.

Of the predisposing conditions affecting the body directly none are more often accused by the public than the familiar "taking cold." Though we cannot explain how chilling of the skin can favor the occurrence of some infectious diseases, it cannot be denied that clinical evidence suggests strongly such a possibility. Yet its frequency is enormously overrated. Some of the consequences of "taking cold" will find their explanation under the head of secondary disturbances.

Slight chemical and mechanical causes may lead at times to serious consequences by opening the gates for the invasion of parasites. The cholera bacilli are so sensitive to the action of acids that we cannot explain how they can survive a sojourn in the normal stomach, at least during the period of digestion. But an indigestion diminishing the acidity of the secretion may permit them to pass uninjured into the small intestines, where they can enter the mucous membrane. As a matter of experience indigestion does endanger life during cholera epidemics. A striking instance of predisposing conditions favoring the occurrence of an infectious disease has been related by Johne.[3] Around the smelting works at Freiberg, in Saxony, there is a rural district in which cattle-raising has become an impossibility. With the fumes emitted from the furnaces large quantities of arsenical vapor are disseminated throughout this district which causes in cattle a diffused form of capillary bronchitis leading to tuberculosis. The disease is characterized as a true tuberculosis both by the morbid anatomy and by the presence of the tubercle bacilli in the lungs. Koch has also drawn attention to the fact that the entrance of inhaled tubercle bacilli through the uninjured bronchial and pulmonary surfaces is difficult on account of the slow growth of these micro-organisms, but can be favored by desquamation of the epithelium from such diseases as measles or stagnation of fluids on account of diminished mobility of the chest-walls, conditions known to predispose to the disease. The researches of other authors have shown how important, if not essential, are minute lesions of continuity in the etiology of erysipelas and of diphtheria.

As regards that most important question, what chemical—or possibly structural—peculiarities determine that mysterious but undeniable *something*, the predisposition

[1] Fortschritte der Medicin, No. 5, 1884.
[2] Mittheilungen a. d. k. Gesundheitsamte.

[1] Mittheilungen a. d. k. Gesundheitsamte.
[2] Lord Rayleigh, in Nature, June 7, 1883; Aitken, idem, January 3, 1884; Lodge and Clark, idem, April 24, 1884.
[3] Fortschritte der Medicin, November 1, 1883.

to infections diseases, we are as yet completely in the dark.

Midway between primary diseases and secondary disturbances, or rather belonging to both categories in a certain sense, are those disorders in which tissues are involved in active primary disease, dependent, however, on a similar pre-existing lesion in some other part. Instances of this kind are catarrhal disease of the middle ear in consequence of nasal catarrh, meningitis dependent upon purulent inflammation of the ear, and, in short, all so-called complications in which the primary disease extends by continuity or by metastasis. The search for the cause of such disseminating infections has been successful in the case of gonorrhœal joint affections, where the micrococci characteristic of gonorrhœal pus have been detected in the pus of the diseased joints and in the blood.[1]

2. *In secondary disturbances* the exciting cause is the existence of some primary disease, or primary lesion, or structural anomaly in the body, while the predisposing conditions may be any of the influences of external or internal origin acting upon the part primarily involved. The route through which a diseased part affects other organs is either through the vessels or through the nerves.

The retention of some secretions leads to the accumulation of poisonous products in the blood, as in uræmia and in icterus. But new poisonous products may also be formed in the tissues under circumstances of disease, and may then cause symptoms on the part of other organs. Of late years attention has been drawn to the not rare occurrence of fatal coma in diabetes, with marked dyspnœa and restlessness, and the excretion of acetone in the urine. Senator[2] has shown that a similar *self-poisoning* may terminate life in diseases of the stomach, of the bladder, and in pernicious anæmia. In consequence of the contusion of soft parts, and more so by the reabsorption of blood extravasations, poisonous products, especially fibrin ferments, are liberated and carried into the circulation, constituting one of the factors of traumatic fever, and indeed the only one in aseptic cases. The very type of secondary disturbances is furnished by all cases of embolism; while, when these are not mere bland plugs of fibrin, but contain living parasites, as in the pyæmic disorders, we obtain complications representing both secondary disturbances and fresh infections. Interstitial hemorrhages, so serious when they occur in the central nervous system, are also secondary disturbances, being due, as Charcot and Bouchard have long since shown, to primary disease of the arteries, viz., miliary aneurisms.

The nervous system is the more frequent route through which secondary disturbances originate. Well known are the degenerations of injured nerves, and the secondary atrophy of muscles and glands. No new additions, however, have been made to this subject. More frequent are morbid symptoms, sometimes imposing on us as disease-entities, due to the irritation of nerves in distant parts. With some impropriety these have been termed reflex disturbances. Familiar to all are the vertigo, simulating brain disease, from stomach lesion, and the headaches produced by constipation. Nor should we forget the success that Schroeder van der Kolk had years ago in the treatment of melancholia by the free use of laxatives. How often is it overlooked that the convulsions of childhood result from irritation of the bowels? Bartholow[3] has rendered it plausible that even paralysis—as he terms it, "enteric paraplegia"—may result from disease of the intestines and be removed by the cure of the latter.

Disease of the sexual system is likewise not rarely the starting-point of symptoms in distant parts: witness the brilliant result of Emmet's operation for lacerated cervix, in some exceptional cases, in restoring general health. There exists a form of obstinate, almost incurable asthenopia, in consequence of adhesive inflammation around the uterus. How strictures of the male urethra may lead to impotence and other functional nervous disturbances is well illustrated in a work by S. W. Gross[1], which has, it seems, not received the recognition which it deserves.

Eye-strain as the cause of irritation in distant parts has been referred to even more by neurologists than oculists; some anomalies of refraction, requiring correction by glasses, produce not rarely headache, vertigo, and even other nervous disturbances, which may mislead in diagnosis. The writer has personally seen an extreme instance where vertigo, nausea, and loss of appetite—supposed to signify disease of the stomach—were removed by correcting by a few degrees the inclination of a cylindrical glass.

The ear, also, by its own disease may induce symptoms at a distance; among others epilepsy and general spasms, traceable to foreign bodies in the ear, have been reported during the past year.[2]

Some of the most interesting secondary disturbances can take their point of origin from nasal disease. A wholly new field has been revealed to us in this direction by Hach[3] which have already received some confirmation.[4]

It appears from his work that the cavernous plexus of blood-vessels on the surface of the inferior turbinated bone is capable of starting most unexpected irritations, both sensory and motor, in distant parts, when itself irritated while turgid with blood. This turgidity of the plexus may be brought on by slight peripheral irritation; for instance, chilling of the skin or excitation of the nasal lining membrane by dust. It seems the oftener this condition has set in the more readily it can be repeated, until it becomes at last almost constant. From the congested region then radiate impulses, which, according to their direction, may result in attacks of sneezing, coughing, asthma, migraine, and even epilepsy. Some of the secondary disturbances thus produced may even amount to slight structural changes like œdema of the skin, and serous effusion in the muscles of the neck. The mystery of taking cold is thus somewhat cleared up, some of the instances being reflex acts starting indirectly from this sensitive area of the nose. These assertions are startling, but are supported by an array of over a hundred cases, in which the significance of the nasal plexus as a starting-point of the disease was proven by its galvano-caustic destruction, and the subsequent cessation of all continuous symptoms and the non-return of the periodical attacks. Moreover, in some of the cases attacks of one kind or another could be experimentally obtained by touching the mucous membrane over the inferior turbinated bone. Symptoms simulating disease of other organs, especially the lungs, have also arisen in Hach's experience from disease of the pharyngeal mucous membrane. The writer might add, in confirmation, that he has been able to remove a cough of thirty years' standing by galvano-caustic destruction of an atrophied tonsil.

We have come to the end. The above survey of the recent advances in etiology cannot lay claim to completeness, nor even to the thoroughness desirable in discussing the value of the separate contributions, for this would be impossible in the allotted time. It can only aim to reflect the progress of the times, and perhaps aid in systematizing the subject by the arrangement and classification adopted. I have aimed to point out the necessity for close analysis in the study of the causes of disease, and to prove that we have advanced far enough to grasp tangible realities, instead of believing in vague superstitions.

[1] Petrone: Centralblatt f. Chirurgie, No. 37, 1883; and Kammerer, idem, No. 4, 1884.
[2] Zeitschrift f. klin. Medicin, vol. vii., No. 3.
[3] Medical News, December 1, 1883.

[1] On Impotence, Sterility, and Allied Sexual Disorders, 1881.
[2] Kuepper: Archiv f. Ohrenheilkunde, vol. xxx., p. 167.
[3] Ueber d. Operative Radicalbehandlung gewisser Formen von Asthma, Heufieber, etc., 1883; and Fortschritte d. Medicin, October 15, 1883.
[4] J. N. Mackenzie: American Journal of the Medical Sciences, July, 1883; and April, 1884; and Sommerbrodt, Berliner klin. Wochenschrift, Nos. 11 and 12, 1884.

ON THE VALUE OF OPHTHALMOSCOPIC EXAMINATIONS IN DISEASE OF THE NERVOUS SYSTEM,

Together with Remarks on Hyperæmia of the Fundus Oculi and Pressure-atrophy of the Optic Nerve in Diseases of the Brain.

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Although ophthalmoscopy furnishes us an important aid in the diagnosis of diseases of the nervous system, oftentimes very grave conditions, affecting one of its divisions, exist without the optic nerves or retinæ revealing evidences of such affections, and especially does this apply to the first stages of these diseases. That there should be these common exceptions to the rule appears strange when we remember that the optic nerves and retinæ are really parts of the brain, and that the eyes bear a closer relationship to the brain than to any other organ of the body. Yet not infrequently do we observe abscesses of the brain from chronic suppurative inflammation of the middle ear—a condition which excites great cerebral disturbance—go on to a fatal termination without the fundus of the eye presenting evidences of any intracranial affection. Hemorrhage into the brain is frequently followed by optic neuritis and atrophy, but it does not always give rise to intra-ocular changes. The same remarks apply to chronic softening of the brain, hydrocephalus, cerebral, or cerebro-spinal meningitis, cerebro-spinal sclerosis, and brain tumors, the different forms of insanity, etc. Only certain forms of disease of the sympathetic affect the fundus of the eye. In brief, the absence of any change from a healthy appearance of the optic nerves or retinæ in diseases of the nervous system are comparatively common. As a rule, however, it may be said that in the fundus of the eye, sooner or later, changes are observed with the ophthalmoscope in the course of serious diseases of the cerebro-spinal or sympathetic nervous systems. Oftentimes the ophthalmoscopic evidences are the first exhibited on the part of the eye, the sight, etc., being undisturbed, and not infrequently they are among the first of a train of symptoms observed in the course of one of this class of diseases. The importance of a careful ophthalmoscopic examination in such cases manifestly cannot be over-estimated, but the absence of changes in the fundus of the eye must not be taken as an important factor affecting the diagnosis of disease in some part of the brain, spinal cord, etc.

Although the ophthalmoscope, as a rule, sooner or later reveals the presence of the more serious diseases of the brain, etc., not always are we enabled, from the changes in the fundus of the eye, to determine the exact character of the affection which has brought them about. As a rule, to which there are many exceptions, it may be safely said that the changes in the optic nerves or retinæ visible with the ophthalmoscope do not, *per se*, furnish sufficient evidence of the form of disease elsewhere in the nervous system to establish a diagnosis, *e.g.*, optic neuritis is frequently seen in cerebral meningitis, simple and tubercular, acute and chronic, in pachymeningitis, in inflammation of the brain substance, etc. That form of optic neuritis attended with swelling, known as "choked disk," is not a pathognomonic sign of brain tumor, although in the great majority of such cases we do observe it; but "choked disk" is also observed in connection with abscesses, blood-clots, etc., in the brain. No exception can be made in the case of the different forms of insanity, for in each of these conditions the changes observable in the fundus of the eye may be either a simple white atrophy of the disk or a congested or inflamed condition of the head of the nerve.

Further, although the ophthalmoscope may reveal a disease of the brain, and also enable us with a degree of positiveness to determine its character, its location is not thereby indicated, *e.g.*, a tumor in any part of the cerebrum or cerebellum, in the cortex of either the right or left lobes, the pons, etc., or a syphilitic gumma at the base of the brain—in short, a tumor anywhere within the cranial cavity may give rise to "choked disk," but the ophthalmoscopic appearances in the main are identical, and moreover, both nerves are inflamed to the same degree. Perhaps one exception can be made in the case of small tumors pressing upon the chiasm and producing, together with other paralytic disturbances, primary or pressure-atrophy of the optic nerves. Rampoldi reports such a case to be referred to later. Evidences of a brain tumor, with rapidly progressing atrophy of the optic nerves, points to a small, perhaps syphilitic or tubercular tumor pressing upon the chiasm. From what has been said we may conclude:

1. That, as a rule, the ophthalmoscope reveals evidences of the more grave diseases of the nervous system at some period during their progress.

2. That the ophthalmoscope does *not* to a certainty enable us to determine the exact character of the disease present.

3. That the ophthalmoscope does not enable us to locate the disease.

The effects of irritation upon the optic nerves on the one hand, and pressure upon or destruction of the optic nerves on the other hand, as they are exhibited in these nerves and the retinæ, are to a degree comparable to the effects of irritation of, or the pressure upon, the nerves supplying the iris, or the eye-muscles. Obviously, the same results are not obtained, because the optic nerves, of which the retinæ are but an expansion, have but one function, that of conveying visual impressions to the sensorium. Intracranial irritation of these nerves brings about a condition which we know as hyperæsthesia of the retina, the evidences of which are that the patient sees flashes of light, bright rings, or dark spots floating before the eyes, etc. This we observe in very severe cases of active congestion of the brain. In still more marked cases of this affection, the eyes are very sensitive to light; the lids, on this account, are kept tightly closed, the pupils markedly contracted, and the eyes filled with tears. This condition is observed in the first stage of inflammation of the meninges and brain structure, especially the former.

If during an intracranial irritation of the optic nerve, the eye is examined with the ophthalmoscope, the fundus is observed to be congested; the evidence of which is increased redness of the nerve from the injection of the capillaries on its surface. This is especially apparent at the periphery of the disk, where the vessels continue over its border, so that the latter is less sharply defined than in a normal condition. The contrast between the nerve and the surrounding retina is also less marked. The arteries and veins of the fundus are, in extreme cases, somewhat enlarged, and their smallest branches filled with blood. In order to determine whether the fundus of the eye is, or is not, congested extreme care is necessary in making the examination. It is very important that the observer be expert in the use of the ophthalmoscope, so that he may be perfectly familiar with the appearance of the healthy fundus. The nasal half of the optic nerve is redder in the normal condition than the outer half, a fact which is liable to lead to errors in diagnosis on the part of one not sufficiently familiar with the normal appearance. It is more rosy in persons after the blonde type, on account of there being a less marked contrast between the nerve surface and the surrounding parts of the fundus. In order to determine these delicate shades of contrast, the direct method of examination is preferable. It is also advisable that a weak light or an unsilvered mirror be employed. The outline of the optic nerve, furthermore, is not always clearly defined in a healthy state. The physiological pulsations of the retinal veins must not be

mistaken for a pathological phenomenon. Lastly, individual peculiarities in the course taken by the retinal vessels are not to be misinterpreted.

The absence of active congestion of the fundus of the eye in cases of supposed congestion of the brain is not to be taken as opposing such a diagnosis. It may be said that only in the severest cases of brain-congestion, such as that which forms the first stages of inflammation of the meninges or the brain itself, is hyperæmia of the optic nerves and retinæ to be discovered. It is very probable that in most of the cases of inflammation, acute and chronic, affecting the membranes at the base of the brain, more or less congestion of the optic nerves would, on examination, be found, since, by their close proximity to the seat of the inflammation—being, indeed, after their exit from the cranial cavity, enclosed in sheaths formed from these membranes—they must be involved, at least, to the extent of being congested. In a very large percentage of such cases of inflammation, the optic nerves participate in the inflammatory process, and, manifestly, if this be so, a large percentage must be affected likewise to the extent of, at least, being congested.

Hyperæmia of the optic nerves attending inflammation, limited to the substance of the brain, doubtless is, for anatomical reasons, less frequently observed than in connection with inflammation limited to the meninges. The blood-supply of the head of the optic nerve is obtained from capillary branches of the central artery of the retina, which, as a rule, is given off from the ophthalmic artery, the latter being a branch of the internal carotid. The central artery of the retina does not penetrate the optic nerve until it arrives at a point about fifteen or twenty millimetres from the sclerotic, so that the nerve behind this point only receives its blood-supply from the capillaries of its sheaths, and from the delicate network of vessels surrounding the individual bundles of the nerve. At times the retinal artery is given off from one of the ciliary or muscular branches of the ophthalmic. The capillaries on the optic disk anastomose with the vessels which come from the "vascular ring" of Haller, which is formed by the short ciliary arteries, and encircles the head of the nerve. From this we see that the intra-ocular extremity of the nerve is almost wholly supplied with blood directly from the large vessels at the base of the brain, and since this is so, the nerve surface must give evidence of irritation in this locality oftener than a like amount of irritation in the structure of the brain itself.

Hyperæmia of the optic nerve has not been observed in active congestion of the brain, after prolonged mental application. Niemeyer failed to find in dangerous cases, after excessive study without sleep, even a hyperæmia of the conjunctiva of the globe and lids. Förster says [1] that the supposition that in active congestion of the brain, hyperæmia of the fundus of the eye would be discovered, has not been verified on examination. He, however, calls attention to the fact that, in the convulsions of infancy due to intestinal affections, etc., the pupils are frequently contracted, and the conjunctivæ congested.

Increased redness of the optic nerves, together with congestion of the lining membrane and margin of the lids, in general, an irritative condition of the eyes is not infrequently observed in the case of persons who have errors in the refraction of the eye, especially hypermetropia and astigmatism, also weakness of the extra-ocular muscles. Headaches very often accompany such affections of the eye. It is only necessary that this fact be mentioned here in order that errors in diagnosis may be avoided.

Primary atrophy of the optic nerves (*i.e.*, atrophy of the nerves not preceded by inflammation of their structure) due to intracranial pressure, is comparatively a rare condition, for two reasons: in the first place, because tumors, blood-clots, etc., either in the substance of the brain, or at its base, directly in contact with one or both nerve-trunks, are more apt to excite inflammation in these structures. The irritation which their presence brings about produces active congestion of the head of the nerve, which finally develops into optic neuritis. This, in turn, is followed by secondary atrophy, a form of atrophy which, more especially in its earlier stages, differs pathologically and in its ophthalmoscopic features from that form which I have under consideration at this time. A tumor, *e.g.*, a glioma, may spring from the chiasm and destroy it in its growth, or it may press it against the brain substance, or against the sella turcica. If the growth be situated so that the chiasm is fairly pressed upon, primary atrophy of both optic nerves may take place. Rampoldi reports a case [1] of atrophy of both optic nerves, the papillæ whitish and slightly sunken, blood-vessels normal, and *no trace of a former neuritis discoverable.* The patient died while under treatment, and at the autopsy an aneurism of the left internal carotid was found, which pressed upon the optic nerve and chiasm.

It is also possible for a tumor to spring from the optic nerve anterior to the chiasm and destroy it, or press it against the bone at the optic foramen. In general, it may be said that tumors growing from the chiasm or its neighborbood, must in the great majority of cases excite irritation which would be referred to the head of the nerve. Of course, an inflammation so excited may not extend to the globe, but may extend through the optic foramen, affecting a greater or lesser portion of the nerve-trunk, and give no intra-ocular evidence of a retrobulbar neuritis. The same remarks apply to tumors, such as exostoses, aneurisms, syphilitic gummata, tubercular formations, sarcomatous or carcinomatous growths at the base of the brain, but not connected with the optic nerves; also to hyperostosis at the optic foramen constricting the nerve.

If a growth presses upon the anterior fibres of the chiasm, blindness of the internal halves of the retinæ occurs—nasal heteronymous (crossed) hemianopsia. If a tumor press upon one of the optic tracts, homonymous hemianopsia is the result. If one of the lateral halves of the chiasm be pressed upon, homonymous hemianopsia occurs. Hjort in 1867 published [2] such a case. A man aged forty-four years had pain on the right side of the head, partial paralysis of the third nerve on the right side, paresis of the facial, and left-sided homonymous hemianopsia. At the autopsy a soft tubercle the size of a hazel-nut was found in the right half of the chiasm. The right optic nerve was smaller than the left. If a tumor press on the extreme lateral fibres of the optic tract, the chiasm, or the nerve of one side, monocular, heteronymous hemianopsia is the result. It is very improbable that tumors would be so situated on the outer side of the tracts, chiasm, or nerve-trunks, that binocular heteronymous hemianopsia would be produced.

Hemianopsia superioris and inferioris have been known to occur from the pressure of tumors directly over or underneath the chiasm, but the cases have been so few that but little is known about the condition.

Although an ophthalmoscopic examination in recent cases of hemianopsia shows the optic nerves to be healthy in appearance, after a time atrophy undoubtedly would be observed. The reason for the late appearance of the signs of this condition at the disk is due to the slow progress of the atrophic changes throughout the length of the nerve. I have had under observation for a year a patient having right-sided homonymous hemianopsia, and at this time no indications of atrophy can be discovered.

In homonymous hemianopsia the location of the cause of the visual defect is on the side of the brain corresponding to the blind half of the retina, and opposite the lost half of the visual field, *e.g.*, in right-sided hemianopsia the brain affection producing it is on the left

[1] Beziehungen Allgemein-Leiden und Organ-Erkrankungen zu Veränderungen und Krankheiten des Sehorgans. Leipsic, 1877.

[1] Arch. of Ophthalmology, xii., 1, 155.
[2] Mauthner: Gehirn und Auge. 1881.

side, either in the cortex of the occipital lobe of the cerebrum, the optic tract, or the left side of the chiasm. In this form of hemianopsia, instead of the lateral halves of the disks showing signs of atrophy, the entire surface of *one optic disk alone is affected, the other presenting a perfectly normal appearance.* In right-sided homonymous hemianopsia, for example, the right disk becomes atrophic, while the left shows no change. The reverse is the case in left-sided hemianopsia. The explanation of this fact is obtained when we remember that the line of division between the normal and the paralyzed halves of the retina is at the macula, and not at the optic nerve. Let us suppose, for example, that a tumor is pressing upon the optic tract of the left side. In this case, the nerve-fibres of the outer half of the retina are affected, and the outer half of the optic disk, we will imagine, shows signs of atrophy. The nerve-fibres of the internal half of the retina of this (left) eye, however, come from the tract of the opposite side, and on their arrival at the surface of the disk, a part of them go to the internal half of the retina, while the other part bend toward the macula, and in this manner cover over the external or atrophic half of the disk. At the macula, these again bend upon themselves, and thus form a second layer over the disk. On ophthalmoscopic examination the papilla of this eye would be perfectly healthy in appearance. The internal half of the right eye is supplied by a part of the paralyzed fibres of the left tract. The other set of these paralyzed fibres supplies the external half of the retina, and in their course to the macula they cover over the sound fibres of the right tract. Here, turning upon themselves, they form a second layer over the disk. An ophthalmoscopic examination of this eye shows that the entire surface of the disk has undergone atrophy. Then, while both nerves are alike atrophic, the nerve opposite the affected side of the brain alone gives evidence of such a condition.

If a tumor be so situated that the anterior fibres of the chiasm are pressed upon, paralysis of the internal halves of the retina is the result, with blindness over the external half of the visual field (heteronymous temporal hemianopsia). In such a case the entire surface of both disks would finally show signs of atrophy. One part of the paralyzed fibres of the nerve is distributed to the internal half of each eye, and the other part, going toward the macula, covers over the sound fibres of the nerve. Schöler reports a case[1] of heteronymous temporal hemianopsia in a person aged twenty-five years, with normal vision, and without any apparent cause other than heredity. No brain symptoms. Iodide of potassium was given, and after a time some change was observed in the boundary line of the visual field. Later, incipient atrophy of the optic nerves was discovered.

If tumors were so situated that pressure would be simultaneously produced on the lateral fibres of each optic nerve, no signs of atrophy would be exhibited at the disk, because the atrophic fibres would be covered over by the healthy fibres of the inner side of the nerves. In superior or inferior hemianopsia, also, atrophy of the optic nerves occurs. Griffith reports the case[2] of a man who had horizontal hemianopsia of the left eye, followed by atrophy of half the disk. The visual field, at twelve inches from the blackboard, was absent below the line of division, being wavy, and from three to six inches below the fixation point.

It is not essential that a brain-tumor, blood-clot, etc., be in direct contact with the optic nerve in order to produce primary atrophy. It may be in some other part of the brain, and give rise to this condition from an increase in the volume of the contents of the skull. Manifestly, the farther such a growth or blood-clot is removed from these nerves the less the opportunity to produce such results. An affection of the optic nerve in such a condition would, as a rule, be after the inflammatory type, due to the general disturbance within the cranium which such conditions are apt to excite. Furthermore, a tumor on one side of the chiasm, not pressing upon the nerve, may produce atrophy by pressing upon the ophthalmic artery, or the artery may be pressed upon at the optic foramen. Hyperostosis at this part of the skull causes atrophy of the disk, doubtless from pressure on the artery, as well as from the constriction of the nerve. I have already called attention to the fact that it is possible for tumors or other conditions of the brain, which give rise to pressure, to be present, and not produce atrophy or other affections of the optic nerve. One of the best examples of primary or pressure-atrophy we observe in hydrocephalus, due to the pressure on the chiasm by the accumulated fluid in the third ventricle. Hinzel, on investigating this point, found in thirty-seven hydrocephalic children but eight with no evidence of atrophy of the optic nerves.

In the second place, primary atrophy of the optic nerves due to pressure is rarely observed, because the conditions which more commonly produce pressure on the nerves, viz., morbid growths, are in the greater number of instances limited to the brain substance. Thus tubercular formations, the commonest of brain tumors, are generally found in the cerebellum. Gliomatous tumors are most frequently discovered in the occipital lobes of the hemispheres, where they may attain immense size. Cancerous tumors affect the hemispheres, the cerebellum, the pons varolii, the optic thalami, and the corpus striatum more frequently than the other parts of the brain. Aneurisms affect the arteries at the base of the brain. Syphilitic gummata, in the great majority of instances, originate in the sub-arachnoid space, either in the form of a more or less circumscribed tumor, or in the form of an infiltration involving the adjacent membranes, vessels, nerves, and also the substance of the brain itself. Cholesteatomata are found in the brain, but oftener springing from the bones or meninges. When tumors are found at the base of the brain, they are more apt to be in the neighborhood of the chiasm, and may or may not produce pressure on the optic nerve-trunk, in the direct or indirect way already noticed. The syphilomata at times grow through the chiasm, or fill the spaces around the chiasm, infundibulum, etc. We can see, however, that a tumor at the base of the brain near the chiasm, if it does not press directly on the nerve-trunk, will have more or less of a tendency to protect it from pressure by forcing the immediate parts of the brain away from the nerve. Of course, this effect of the presence of a tumor in the neighborhood of the chiasm can only be obtained within a certain limit, because the contiguous brain substance becomes softened as the growth of the tumor advances. Furthermore, the cavity of the cranium is so closely filled with the brain, its membranes, liquor cerebro-spinalis, blood, etc., that pressure on the chiasm, etc., is indirectly obtained, to say nothing of the fluid of the sub-arachnoid space being forced between the sheaths of the optic nerves, a condition which it is not within the scope of this paper to discuss. Moreover, as I have already indicated, a tumor of any size in this locality, in the great majority of instances, excites a meningitis, or at least causes sufficient disturbance to produce irritation throughout the entire length of the nerve.

Monocular primary atrophy of the optic nerve, due to intracranial pressure, must be a very rare condition, for anatomical reasons. The nerves, directly after their decussation at the chiasm, enter the orbit through the optic foramen. It is possible for a hyperostosis at the optic foramen to produce primary atrophy through the constriction to which the nerve is subjected, or a gummous deposit at this point to so press upon the nerve that its vitality is destroyed: but no growth of any size can affect the nerve of one side without the chiasm being involved, and the effects of the pressure being exhibited on the nerve of the other side. In the great majority of the

[1] Annual Report of his Ophth. Clinic for 1881.
[2] Ophth. Rev., vol. i., p. 153, March, 1882.

cases of monocular pressure-atrophy the cause of the atrophy is in the orbit, and not within the cranial cavity.

The ophthalmoscopic appearances of primary atrophy of the optic nerve are generally very marked. The surface of the disk is pale or dead-white, having perhaps also a bluish or greenish shade. It may be level, but very frequently it is excavated, the excavation differing from the normal or physiological excavation in the fact that it is apt to extend over the greater part of the surface of the disk. Its edges are not abrupt, but slanting, so much so that oftentimes no dipping of the blood-vessels on the surface of the nerve is observed. The disk has lost its transparency, so that the vessels cannot be traced beyond the surface into its structure, as in health. Its outline may be irregular, but is sharply defined, and is readily to be distinguished from the surrounding choroidal ring. The small blood-vessels of the disk are hardly observable, or have entirely disappeared. The retinal arteries are much attenuated, oftentimes being thread-like in size. The veins are smaller than in health, but, as a rule, are not so small as the arteries. The above represents the nerve in an advanced stage of atrophy. Less marked changes are, of course, to be observed in cases wherein the cause is slight, of short duration, or slow in its progression.

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SPASMODIC INTERNAL STRABISMUS.

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So far very little attention has been paid to the condition of spasmodic strabismus. There are not many cases recorded to which one can refer for information as to the causes, progress, termination, and treatment of such a condition. No doubt it is a rare affection; yet perhaps if it once received a fair share of attention a larger number of examples might be detected than at present is thought to exist.

The following case which came under my notice, and which I purpose making the text for a few remarks, occurred in a young man aged nineteen. His health has always been good. When he came to me he stated that about a year ago he had entered the service of a watch and clock maker and repairer, and as a consequence was steadily engaged in work requiring close visual application. From this time on he noticed his left eye becoming affected, that it would turn inward at times and look across the nose, and that he was becoming short-sighted with the left eye. This condition gradually grew worse until the internal squints came on frequently, and often from becoming excited in any way. When he consulted me first the eye would at times turn inward to such an extent as almost to hide the cornea from view.

His family history gave evidence of spasmodic nerve trouble. His mother had never suffered from any disease of the nervous system, although she was very excitable and impulsive. One sister, older than the patient, had an attack of chorea some two years before the date at which I was consulted, while another and younger sister was greatly troubled with startings during sleep.

On examination with the ophthalmoscope nothing could be detected at all abnormal with the fundus. Light did not affect the eye. The eye was myopic. Print which could be read at eighteen inches by the right eye could only be read at six inches by the left. On steady application to fine work the left eye fatigued much more quickly than the right. The upper lid was occasionally twitched convulsively upward. If the patient was not at work for a day or two the twitchings of the eye became less severe and less frequent, and the myopia improved.

Such being the condition of the patient, what was the trouble, and where situated? It was clearly not a paralytic affection of the external rectus, as the squint was only of occasional occurrence; neither could it be due to shortening in the internal rectus, as this would cause a permanent deflection of the eye. Moreover, from the spasmodic and occasional nature of the attacks, it was clearly of a nervous character.

As has been said, it could not be one of paralysis of the sixth nerve, as this would lead to permanent internal squint. The superior oblique, which directs the eye downward and outward, if paralyzed would allow the eye to roll slightly upward and inward. Hence neither this muscle nor the fourth nerve was at fault.

Turning now to the muscles supplied by the third nerve, we find that all the conditions existing in the eye could arise from contraction of these muscles. During and for some time after one of the spasms, the pupil of the affected eye was more or less contracted according to the severity of the attack. This can be readily accounted for when we remember that the circular fibres of the iris are under the control of the third nerve. The third nerve, in addition to the circular fibres in the iris, supplies the levator palpebræ superioris, the internal rectus, the superior and inferior recti, and the inferior oblique. Now, a spasm of these muscles would cause the upper eyelid to twitch upward and the eye to turn inward. In this latter action—namely, the internal squint—we have several factors to consider. The first and principal one is the internal rectus, which directs the eye inward; then the superior and inferior recti have their influence, the former turning the eye upward and inward, the latter downward and inward, while both acting together would carry the eye directly inward along with the internal rectus. The last muscle under the control of the third nerve which we have to notice is the inferior oblique. This muscle, when in action, turns the eye upward and outward. Now, from the combined action of the superior, inferior, and internal recti it would be quite impossible for the eye to move outward under the action of the inferior oblique, while there is nothing to prevent the upward motion. Thus, three muscles would carry the eye strongly inward, while one would carry it feebly upward; and all together would carry it inward and a little upward, as in the case of the young man under consideration.

The myopia can be accounted for on the following principles of the composition of forces. The superior and inferior recti when contracted would compress the eye. Again, the inferior oblique carries the entire globe inward and would press it against the contracted internal rectus. From these forces the antero-posterior axis of the eye would be elongated and myopia ensue.

The treatment adopted was to procure a pair of glasses with a plain glass for the right eye and a concave glass over the left eye. The patient was put on a mixture containing fl. ext. ergotæ, ℥. xv.; pot. bromidi, gr. xx.; and liq. arsenicalis, ℥. v., four times a day. At the end of two months the spasms had ceased and only a slight myopia remained.

Milk Diet in the Treatment of Gastric Ulcer.—Dr. Debove has lately lifted up his voice against the common practice of putting patients with ulcer of the stomach upon an exclusively milk diet. He argues that the quantity of fluid required is so great that a dangerous dilatation of the stomach is produced, thereby leading to hemorrhage, and cites one case of death so caused. His plan is to give about six drachms of beef powder with two and a half drachms of bicarbonate of soda. This, he found, is passed directly into the intestine, undergoing no change and causing no irritation in the stomach. In addition, about a quart of milk with saccharated lime is allowed each day. M. Debove states that this mode of treatment has given him great satisfaction in a number of cases.—*Gazette des Hôpitaux*, April 29, 1884.

Progress of Medical Science.

THE MOTOR NERVES OF THE STOMACH.—Having performed nine experiments for the purpose of determining the motor nerve-supply of the stomach, Dr. A. Russo Giliberti reaches the following conclusions: The motor innervation of the stomach is derived chiefly from the vagus, partly from the sympathetic, and to a slight extent from certain medullary nerve-fibres. The great sympathetic system does furnish motor fibres to the organ in spite of the negative results obtained by Chaveau from a stimulation of the cervical sympathetic. The experiments of Adrian, who produced movements in the organ by exciting the solar plexus, must be accepted as exact. The sympathetic motor fibres enter the semilunar ganglia by way of the great splanchnic nerve, and participating in the formation of the solar plexus they pass to the gastric parietes. It still remains to discover the course pursued by the medullary motor fibres, which probably pass through the greater or lesser splanchnic, and to discover whether, after section of all the gastric motor nerves, contractions of the organ will still occur in virtue of the activity of possible intrastomachic ganglia analogous to those of the heart. Ramier has demonstrated such ganglia in the frog's stomach.—*Archivo per le Scienze Mediche*, vol. vii., No. 3, 1884.

THE POSSIBILITY OF SYPHILITIC REINFECTION.—The question of the possibility of a second attack of syphilis occurring in an individual who has previously suffered from the disease seems to be still held *sub judice* by many writers, despite the fact that instances of a true second attack have been reported by numbers of competent authorities. Dr. J. Neumann records, in the *Wiener Medizinische Presse*, Nos. 1, 2, 3, 4, and 5, 1884, a series of cases of secondary syphilis in which he had observed the development of sores resembling very closely in their general characteristics hard chancres. They healed, however, very readily under indifferent treatment, and were followed by no symptoms of general infection, nor even by indolent buboes. He concluded, therefore, that they were soft chancres or gummata, which had assumed the characteristic induration from the fact of their being planted on a syphilitic base. It is probable that the greater number of cases of alleged syphilitic reinfection would fall in this category, and that the instances of a true reinfection are very rare, though that a second attack may occur can hardly, in face of recorded facts, be doubted. Neumann ranks syphilis next after measles and scarlet fever in respect to the frequency of a second attack.

SULPHATE OF COPPER IN OBSTETRICAL PRACTICE.—At a recent session of the Académie de Médecine, Dr. Charpentier advocated the employment of sulphate of copper in injections after childbirth (*Bulletin Général de Thérapeutique*, April 30, 1884). He had used it with satisfaction in a one per cent. solution as a wash for the vulva, and in vaginal and intrauterine injections. This solution is absolutely innocuous, and joins to its antiseptic properties that of being a hæmostatic but little inferior to the perchloride of iron.

THE EFFECT OF MENTAL ACTIVITY UPON THE TEMPERATURE OF THE BODY.—M. Gley recently communicated to the Société de Biologie the results of a series of personal observations made to determine the fluctuations in the temperature of the body under various conditions. For this purpose he had a thermometer made in such a way that the rectal temperature could be easily observed and its variations followed. He found that when sitting perfectly still, with the mind not actively employed, the temperature fell steadily, but when he was engaged in intellectual work this descent was interrupted and partially arrested. In an hour and a half the fall was 1.1° F. when the mind was at rest, but during the same length of time, with mental labor, there was a descent of but 0.4° F. In another series of observations, conducted while lying in bed, the intellectual faculties being meanwhile active, there was a slight rise. M. Gley seeks to explain this phenomenon by the increased heat of the brain caused by psychical activity, though it would admit of other, perhaps more satisfactory explanations.—*Gazette des Hôpitaux*, April 29, 1884.

VOMITING OF PREGNANCY.—Dr. Torino has found that during pregnancy there are often points of tenderness along the spinal column. He attributes the vomiting to spinal irritation and anæmia of the cord. In support of this theory he adduces the satisfactory results often obtained by the administration of phosphite of zinc and nux vomica. Under the influence of these drugs the vomiting is frequently controlled and the points of spinal tenderness disappear.—*L' Union Médicale*, April 29, 1884.

RESECTION OF THE ASTRAGALUS IN ANKLE-JOINT DISEASE.—In an article of some length on this subject Dr. Robert sums up as follows (*Archives Générales de Médecine*, May, 1884): 1. A sprain of the ankle is often followed by chronic osseous lesions which are very prone to become localized in the astragalus or at the articular surfaces of the astragalus and os calcis. 2. These lesions may remain for a long time limited to this part of the tarsus, but are often very intractable to treatment. Even *évidement*, scraping, and deep cauterization may fail to remove all the diseased bone, and sometimes cause such an aggravation of the disease that amputation becomes imperative. 3. The removal of the astragalus is an operation which facilitates the exploration of the articular surfaces attacked by caries. Practised according to Vogt's method it is easy of execution, attended with but slight mortality, and leads to a permanent cure, with often the preservation of excellent joint motion. 4. As is the case in all resections, the removal of the astragalus should not be attempted when the patient is affected with pulmonary tuberculosis or is of an advanced age, or, finally, when the disease is very extensive.

CARCINOMA AND SYPHILIS.—In a thesis upon the relations of cancer and syphilis, Dr. E. H. Ozenne states his belief that the latter favors the development of carcinoma by creating points of feeble resistance. It, however, modifies the physiognomy of cancer, acting upon the functional troubles, particularly the pain, which it lessens or entirely abolishes. After having provoked the inception of the neoplasm, syphilis seems for a time to retard its progress. But sooner or later it disappears from the scene, leaving the field free to the carcinoma, which then at once resumes all its usual features.—*La France Médicale*, April 29, 1884.

THE ETIOLOGY OF CROUPOUS PNEUMONIA.—In January, 1882, an article appeared in the *American Journal of the Medical Sciences* from the pen of Dr. A. Seibert, of this city, in which it was sought to establish the dependence of croupous pneumonia upon meteorological influences. The conclusions of the author were as follows: 1. The development of croupous pneumonia is greatly favored by certain conditions of the atmosphere. 2. This meteorological influence is identical with that which forms the development of catarrh of the respiratory mucous membranes. 3. It is especially in the sudden occurrence and long duration of damp, cold weather that this influence is manifested. These conclusions were called in question by a German writer, who asserted that whatever the fact might be in America, the experience of European observers was that pneumonia occurred with greatest frequency during a period of dry, cold weather. In a paper recently read before the Society of Physicians to the German Hospital and Dispensary of New York, and published in the *Berliner Klinische Wochenschrift* of May 3, 1884, Dr. Seibert returns to the question. He criticises a series of four observations made within the last two years by Köhnhorn, Post, Kel-

ler, and Senfft, and proves by their figures that his conclusions are correct for Germany as well as for this country. It is shown in these investigations that the greater number of cases of croupous pneumonia occurred not with dry cold but with damp cold conditions of the atmosphere. It was at the suggestion of Dr. Seibert that the collective investigation of pneumonia now in progress in this city, under the charge of the Committee on Hygiene of the County Medical Society, was started, and the results will be looked for with interest as tending to settle conclusively this point in the etiology of croupous pneumonia.

Witch-Hazel in Menorrhagia.—According to Mr. Henry M. Chute, menorrhagia is a very frequent ailment of women in Cape Colony. He has found a valuable remedy for it, he says, in the American witch-hazel (*Hamamelis virginica*), in doses of half a teaspoonful of the fluid extract, in sugared water, twice or three times a day. Mr. Chute states that it acts so quickly that it is not necessary to anticipate the flow, but when menstruation, after it has lasted the ordinary time, is not closing naturally, the remedy given as above will effectually restrain it, and after the hemorrhage has ceased there is no advantage in continuing it. While thus taken, some patients have mentioned that they have a pleasant sense of exhilaration, and have lost that wearying sense of languor felt at these times. Another good result witch-hazel produces is that, when there is dysmenorrhœa, it, in a very quick and marked way, relieves the pain.—*South African Medical Journal*, No. 2, 1884.

Osteotomy for Hallux Valgus.—Dr. Barker relates in *The Lancet*, No. 15, 1884, the case of a young man suffering from aggravated hallux valgus, in whom every remedial measure had failed to give relief. He was unwilling to resort to amputation, and at the suggestion of a student, Mr. Hoar, determined to try osteotomy. A wedge-shaped piece was removed from the inner side of the metatarsal bone just above the head. The great toe was then forcibly adducted (with reference to the median line), the remaining uncut portion of the bone being fractured by the manipulation. The toe was maintained in position by splints attached to the inner border of the foot, and the wound dressed antiseptically. The result was very satisfactory, and the patient now has a straight toe, and is relieved of all the troubles formerly experienced.

Pneumonic Hemiplegia.—Dr. H. Luc relates an instance of this disease, or, to speak more scientifically, combination of diseases. The case was that of a woman, the subject of extensive atheromatous disease, in whom left hemiplegia supervened on the fourth day of a pneumonia affecting the right lung. The hemiplegia was of the ordinary cerebral type, without affection of sensation, but with some impairment of the intellectual faculties. The tendency to the formation of fibrin is well known to be increased in acute pneumonia, and it is believed that this altered condition of the chemistry of the blood, together with the presence of disease of the arterial walls of the brain, gave rise to thrombosis of some part of the right middle cerebral artery. Five months after the onset of the hemiplegia, the only remains of the paralysis was a little deviation of the mouth to the right. It ought to be mentioned that a systolic murmur of doubtful site also appeared during the evolution of the pneumonia.—*The Lancet*, May 10, 1884.

Stretching Combined with Resection of the Spinal Accessory Nerve in Spasmodic Torticollis.—A woman, twenty-six years of age, had suffered for two years from a painful clavic torticollis, supervening upon a nervous shock, and due to contractions of the sterno-mastoid, trapezius, and levator anguli scapulæ muscles. All other measures having failed, the spinal accessory nerve was first stretched, and then a portion was resected. After a transitory paresis there was seen to remain only a slight degree of deviation of the head, painless and easily corrected by apparatus. Dr. Schwartz, who reported this case to the Société de Chirurgie of Paris (*Revue de Chirurgie*, May, 1884), related the results obtained in eight other instances of torticollis treated by stretching, section, or resection of the spinal accessory nerve. The conclusion arrived at was that the operation of resection gave promise of the best results. But the speaker thought that a preliminary stretching might be resorted to with advantage, the procedure being perfectly safe if not carried beyond moderate limits.

Anuria of Ten Days' Duration.—Dr. Eger reports the case of a man, fifty-nine years of age, long troubled with gravel, who had an absolute suppression of urine for ten days. The attack began with some pain, but this soon passed away, and up to the tenth day the patient felt well and complained of nothing. On this day, however, he was seized with uræmic convulsions and died. The autopsy showed marked hydronephrosis, both ureters being plugged with calculi.—*Centralblatt für Klinische Medicin*, April 26, 1884.

Idiopathic Ascites.—Dr. Toulze defines this affection as an ascites occurring suddenly in a previously healthy individual, continuing for a variable time with perhaps one or more relapses, but terminating finally in recovery. Its cause is found in a sudden chill, either from external influences or from the ingestion of very cold fluids, or it may come on after the sudden suppression of the catamenial flow or the recession of an exanthematous eruption. It may exist as an acute, a subacute, or a chronic condition. The acute form is accompanied, as a rule, by a rather intense pyrexia. The abdomen is more or less distended with fluid, which gives rise to the usual functional troubles. The subacute form is of longer duration and presents the same symptoms, though in a less pronounced degree. The chronic variety is characterized especially by the frequent relapses. The course and duration of essential ascites are naturally very variable, but that which characterizes all the different forms is the favorable termination. A spontaneous cure almost always obtains by crisis at the end of a month or two, sometimes more, sometimes less. The fluid is carried off by way of the kidneys, the skin, the intestines, or even, in some cases, by the mammary glands. Instances have been noted in which an increased secretion took place from accidental wounds or from ulcerated surfaces, the ascitic fluid finding vent in this way. The treatment consists in favoring by derivatives the removal of the fluid. Diuretics and drastic purgatives are especially indicated. Paracentesis should be reserved for those rebellious cases which seem to resist the action of internal remedies.—*Journal de Médecine et de Chirurgie Pratiques*, May, 1884.

Treatment of Pleurisy with Effusion.—Professor Picot, of Bordeaux, writes concerning a new procedure, suggested to him by Dr. Cayla, of considerable value in the treatment of pleurisy. After the thorough evacuation of the fluid by aspiration, he makes a number of punctate cauterizations covering all of the region affected, using for this purpose the thermo-cautery. The points of cauterization are very numerous and are placed close together, not more than a centimetre apart, but are very superficial, seldom involving more than half the thickness of the skin. They are very well borne by the patients. Professor Picot has used this method in a number of cases, and has never met with one in which a reaccumulation of fluid took place.—*Journal de Médecine et de Chirurgie Pratiques*, May, 1884.

Diphtheritic Arthritis.—In an epidemic of diphtheria occurring in a school, Dr. Pauli observed some cases of multiple joint disease existing as a complication. He explains the occurrence of this arthritis as due to the specific viris acting in the same way as that of gonorrhœa, pyæmia, etc.—*Centralblatt für Klinische Medicin*, May 10, 1884.

THE MEDICAL RECORD:

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GEORGE F. SHRADY, A.M., M.D., EDITOR.

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LEGALIZED PROSTITUTION.

To those who, as a remedy for the public prostitution in New York City and elsewhere, have advocated a regulation by law, a close perusal of the work on Prostitution by Yves Guyot, member of the Municipal Council of Paris, will be both instructive and suggestive. M. Guyot has exhaustively reviewed the operation of the regulation system in France especially, and the other Continental countries in general. He also devotes some space to the working of the special provisions of the Contagious Diseases Acts in the military stations of England. M. Guyot, though plainly showing his antagonism to the license system, has not contented himself with mere phrases of rhetoric in displaying his opposition, but calmly and dispassionately has marshalled the incidents of years in order to support his enmity to a system which he deems illiberal, cruel, and unjust.

M. Guyot should be listened to with all the more consideration, owing to the fact that he has shown by his willingness to face the anger of the *police de mœurs*, and even accept imprisonment for his opinions, that he has been actuated by naught except a sincere desire to overturn laws which bring discredit on a people enforcing them. He shows that the practice of making prostitution a source of revenue to the State is not French in origination, but dates back to the period when Solon was the law-giver of the Athenian Republic. From that time to the present the whole history of the attempts made to restrict or confine the carnal appetite has been a dark calendar of brutality and wrong to the unfortunates who, either from choice or unfortuitous circumstances, have engaged in sexual commerce. To the minds of those who are disposed to be favorable to a form of regulation the rehearsal of the indignities suffered by fallen women prior to the nineteenth century may seem uncalled for and not a fit method of ratiocination. But when it is considered that these repetitions are but links in the long chain which is still being forged, M. Guyot can be pardoned for bringing up the past.

The arbitrary way in which women are compelled to submit to the enforcement of the police regulations is sufficient to cause a glow of shame to come to the cheek of every man who assists in sustaining a code which compels a woman to submit to an examination as if she were a diseased animal. A woman shows herself on the pavement after a certain hour. She may be a wife and mother about to obtain some necessary for her family. She may know of the laws governing prostitution, but lulled by the security which innocence always feels she is unconscious that any of the provisions may be twisted in such a manner as to apply to her. A member of the "Morals Police," anxious to make an arrest and moved by innate brutality, has the power to confine her in prison among abandoned women of all degrees of degradation, and when at last the unhappy woman is enabled to produce the testimony substantiating her assertions at the time of the arrest, she is discharged with the admonition to be more discreet in future and not mislead the virtuous police. She is no doubt happy to be relieved from bondage; but can it be supposed that a refined gentlewoman will ever forget the horrible nightmare of her incarceration?

Frightful as this may be, how much more incredible the situation of a young girl who from untoward circumstances finds herself in the hands of the supervisors of prostitution? Unable to communicate with friends, she undergoes the hellish ordeal of the speculum in the hands of men who disgrace the profession of medicine, and when, too late, her virginity is known she has the alternative of taking her ticket and becoming a registered prostitute, or bearing with her forever the thought of the horrible indignities to which she has been subjected.

A man becomes tired of the woman with whom he has lived, and bound by no ties of either Church or State, too cowardly to face the woman's tears or anger if he breaks off the connection, communicates with the *police de mœurs*. They arrange it for the recreant lover, and the woman is forced to be examined and registered or leave the country. A girl lives in furnished rooms. She may have nothing in common with prostitutes, or may even be a respectable woman. The *police de mœurs*, however, have observed her and she must accede to their demands or report for examination. The requirements of the police vary at times. They may ask individual fees or the satisfaction of private lust. At others they act as procurers for favorite or well-paying establishments protected by law. At all times they stand between the keepers and actual procurers and the law, and operate as stop-gaps whenever a person through philanthropy or curiosity attempts to discover the inner workings of legalized houses.

Never do these models of the "Morals Police" miss a chance to levy tribute from the miserable women whose masters they are, and from long experience becoming satisfied that they have immunity from punishment, force the chattels of the State to become the concubines of the enforcers of the law. These phases of the question, however, might be remedied if the law itself was a true solution of the problem, but it is not. Statistics which cannot be disputed prove that but a small percentage of prostitutes are registered in any of the countries where the regulation system is in vogue. This is the result after years and years, and when the non-registered know they are running the risk of imprisonment. The theory M. Guyot advances to account for this is, that no matter how mercenary and vile a woman may appear, there is still left a beginning spark of womanhood and shame, which fills her with horror at the thought of being examined by men who boast of the speed with which they

dispose of women. One inspector prides himself that he examined 120 subjected women in an hour.

As a safeguard against venereal complaints the inspection has also proved a decided failure. The statistics of the Paris hospitals in which records have been kept show that the percentage of venereal cases contracted from registered women is much larger than from those who have declined inspection. M. Guyot in commenting on this point mentions the unreliability of statistics of this nature, owing to the many peculiarities of syphilitic infection, but at the same time calls attention to the fact that from its very rapidity the inspection is never thorough and very often a genuine case of syphilis may be overlooked. While on the other hand, taking into consideration the virulence of the syphilitic poison and that the speculum is not thoroughly cleaned after each inspection, it may be naturally inferred that many women who enter the inspecting rooms absolutely free from venereal taint leave with the dried syphilis implanted in their systems, the poison having been transferred from a diseased woman by the medium of the speculum. The same thing has been noticed at the military and naval stations in England. Cases of a venereal nature have increased since the Acts of Contagious Diseases have been put in force, although the freaks of statistics are again illustrated in Portsmouth harbor, where two naval vessels anchored beside each other showed the most remarkable variations, one vessel having a percentage of syphilitic cases threefold as much as the other. But, leaving out all these disturbing factors, M. Guyot seems to make an almost unanswerable argument against the continuance of these provisions.

The work of M. Guyot bears the impress of honesty. He has not avoided ridicule of those who think differently, but if he had he would be a paragon. One thing, however, is to his credit, and that is in his figures and tables he has not attempted to twist everything into arguments for his side. As a whole, however, M. Guyot does not make his crusade upon the question of the success or failure of the laws, but bases it upon the sacred feeling of humanity and justice to women. As to syphilis, looked at from a hygienic point of view, M. Guyot well says, to cure it we must first get rid of the old prejudice which looks upon it as a shameful disease. Against it we employ police regulations, restraint, and annoyances, as prophylactic means—and forget only one thing—to care for it properly. To bring about the eradication of the disease, all hospitals should look upon it the same as any other disease and make the patient comfortable. The readers of M. Guyot's work when they reach the last chapter may be surprised by his plan to weed out prostitution. It may be a wild and chimerical idea which he advances, but it must be admitted that it seems to be the only remedy. It is that the morals of the day undergo a complete transformation, and that instead of a woman being damned by social laws for the least trip she will in time be measured by the same gauge as man.

SECURING A DIPLOMA BY SPECIAL MANDAMUS.

INFORMATION has reached us concerning a certain somewhat novel method by which a female medical student in the Woman's Medical College of this city succeeded in getting her diploma against the will and wishes of the Faculty. The story is interesting, and carries a moral for other medical colleges in this country. It appears that the student in question, though no doubt artless herself, was the wife of a lawyer, and was also a shorthand reporter. Throughout her medical course she had ranked as low as possible at the quizzes, but had surprised her instructors by getting sufficiently good papers at the final examinations to enable her to pass all the examiners but two, viz., the Professor of Obstetrics and the Board Examiner on Materia Medica and Therapeutics. Having failed before these two, however, she was, by the rules of the Faculty, not recommended for a diploma. But, anticipating trouble, she had kept a copy of her examination paper before the Professor of Obstetrics.

Copies of this were sent to Dr. L. A. Sayre, Dr. J. W. Ranney, Dr. T. Gaillard Thomas, and Dr. Byrne. These gentlemen all certified that the paper was a correct and a good one, showing perhaps unusual intelligence. Upon the authority of these names, a mandamus was issued, and the Dean of the Faculty was ordered to decide in half an hour whether the College would grant a diploma or stand a suit. Upon taking legal advice it was found that technically the student had the advantage and the College had no case. Medical colleges, it was argued, were not arbitrary bodies, and could not refuse a degree to a student without reasonable ground. This student was refused a degree by one Professor whose judgment was based not alone upon the examination papers, but upon personal and verbal examinations extending over a long time. Practically her judgment was overruled, and the College compelled to confer a diploma through the interference of the physicians above named. We have no doubt that these gentlemen passed upon the papers in ignorance of their real nature, but their action is not to be regretted the less on that account.

But the main lesson to be drawn from this incident is one of warning to medical colleges who desire to confer degrees only upon those whom they believe to be fit. If the tests are entirely written, it may be possible for an ignorant student, by industrious "cribbing" to get papers upon which the court will issue a mandamus for a diploma.

It is only fair to say that the examinations of the Woman's Medical College are conducted with more than usual care and strictness; for the students have to pass not only the Faculty, but subsequently must go before an independent Examining Board.

RECTAL ETHERIZATION AND DR. AXEL YVERSEN, OF COPENHAGEN.

WE have noticed that several of our contemporaries, in speaking of rectal etherization, refer to it as Molière's method. This is we think an injustice to the man to whom Molière owed the suggestion, and one that should be corrected at the outset. For although it is too soon to speak of anæsthesia by the rectal method as an innovation of real value, it is nevertheless not at all improbable that it may in time come to be recognized as a procedure of practical utility in certain cases. It is now on trial in several cities throughout the country, but time only can determine whether it will be adopted finally as

a safe and convenient mode of inducing anæsthesia. Should it be so adopted the procedure must receive a name, and that name should be one by which credit is given to the one to whom credit is due. Molière was indeed the first to call attention publicly to this method, but he did not claim the merit of the invention. As was pointed out in THE RECORD of April 26th, his experiments were undertaken at the suggestion of Dr. Axel Yversen, of Copenhagen, and it seems only right, therefore, that this method of etherization should be called Yversen's or the Danish method, rather than Molière's or the French. It too often happens that the men who make discoveries remain unknown, while the credit for their work is bestowed on others who possess the faculty of presenting these discoveries to the world in a striking and attractive light. In the event, therefore, of Yversen's method becoming established as a practical and useful way of inducing anæsthesia, we hope that the originator may not be deprived of the honor due him.

THE UMBRELLAS AND CHAIRS OF LULU HURST.

FOR several months Southern papers have been describing the wonderful performances of a young girl known as Lulu Hurst. These reports have stated that she possessed a unique and extraordinary "force."

We were pleased, therefore, to receive recently a very careful and conscientiously written account of this phenomenon from Dr. Seth N. Jordan, of Columbus, Ga. Dr. Jordan states that, in company with Drs. George Grimes and Carlisle Terry, he examined Miss Hurst, and that they are all agreed that she is not a fraud, but possesses some extraordinary and occult power. He writes that she is fifteen years of age, five feet four inches high, weighs one hundred and twenty-five pounds, is of moderate muscular development, in good general health, has menstruated regularly, is of an intelligent and amiable disposition. She first became aware of the possession of her "force" last September, and it has continued ever since, with the exception of a brief interval when she had a "cold."

Drs. Jordan, Terry, and Grimes, having purchased a new umbrella, experimented with her for four hours in the room of a hotel. The phenomena developed were somewhat as follows: Two or three scientific persons take hold of the handle of an open umbrella, and hold it fast; Miss Lulu then touches it with her open palm, when, presto! the umbrella is turned inside out, or snatched away despite every effort. Meanwhile other persons find that no muscular contractions have taken place in Lulu's arms.

Three strong and scientific men lift up a chair and hold it in the air. Lulu places her hand upon it and it sinks to the floor despite every effort. Dr. Jordan and others took hold of a long stick, the phenomenon touched the other end and it rapidly revolved, or pulled the three experimentalists roughly about the room. Miss Hurst's "force" seems to have a peculiar "penchant" for umbrellas and canes, so that she cannot carry the former article at all, the mystical something snatching it away and leaving her out in the wet.

With the exception of the production of knocks and raps, the above are the chief phenomena exhibited and described.

We fully believe that Dr. Jordan has described them correctly, and that Miss Hurst is a remarkable girl. But there is one feature in all her performances which no one, not even Dr. Jordan, seems to have noticed, or, at all events, carefully studied. This is, that all the exhibitions of her wonderful force are exhibited in opposing voluntary muscular effort in others. This force has no power over dead matter, but only over living, conscious, muscular exertions. This fact explains, we believe, the mysterious energy which the Georgian phenomenon appears to develop. It is the experimenters, not the subject, who knock themselves and the umbrellas about. At any rate the matter ought to be investigated from this standpoint. It will probably be found that Miss Hurst's exhibitions are only another phase of the hypnotic phenomena.

News of the Week.

ARSENIC IN COFFEE.—The New York City Health Board found about one-twentieth of a grain of arsenious acid in two ounces of certain specimens of coffee examined.

THE KENTUCKY STATE MEDICAL SOCIETY met at Bowling Green this past week.

THE WISCONSIN STATE MEDICAL SOCIETY met on the same day.

THE NATIONAL BOARD OF HEALTH.—The Committee on Public Health of the House of Representatives has agreed to report adversely on the bill recommended by the National Board of Health for renewing the Quarantine Bill of 1879, taking the ground that it is not expedient to give the Board control of quarantine matters, and that the Treasury Department is managing that matter sufficiently well. It recommends that $200,000 be appropriated as a contingent fund, to be drawn at the discretion of the President, for preventing or checking epidemic disease, and it is to be presumed that the intention is that this fund shall be expended through the Marine Hospital Service. It also recommends that $25,000 be appropriated for the salaries and expenses of the National Board of Health, $18,000 being for scientific investigations. This action may be looked upon as a defeat for the Board, although it is better supplied than it was a year ago. Certainly the sum of $18,000 ought to bring forth some scientific work. The final settlement of the question, however, does not occur until the Sundry Civil Appropriation Bill comes up.

A CONFERENCE OF THE HEALTH OFFICERS OF THE GULF STATES was held this week at New Orleans. A committee was appointed to formulate a uniform system of quarantine for the entire Gulf coast, and another committee was appointed to consider the question of inter-State quarantine. Dr. Thornton, of Memphis, offered a resolution to memorialize Congress to invest with authority and means the National Board of Health as a medium of inter-State quarantine. Dr. Thornton's resolution was defeated by the votes of Alabama, Florida, Louisiana, and Texas against it, with only Tennessee and Mississippi in its favor.

THE ONTARIO MEDICAL ASSOCIATION held its fourth Annual Meeting at Hamilton on June 4th and 5th. A large number of papers were read.

THE CELEBRATED CHEMIST, PROF. C. A. WURTZ, died in Paris on May 12th, in the sixty-seventh year of his age.

PRESBYTERIAN HOSPITAL, NEW YORK.—The recent annual election of officers of the Medical Board of this hospital resulted as follows: President, Dr. Alfred C. Post; Vice-President, Dr. Alexander Hadden; Secretary, Dr. Frederick A. Castle.

ST. LUKE'S HOSPITAL, NEW YORK.—Dr. Robert Abbe has been appointed surgeon to St. Luke's in place of Dr. W. T. Bull, resigned and appointed consulting surgeon in place of Willard Parker, deceased.

PROLONGED REPRIEVE AGAINST COMMUTATION.—The Governor of Delaware is not allowed to commute the death sentence of a criminal, but he can grant reprieves. In a recent case, where the circumstances seemed to warrant clemency, the present Executive devised a method of circumventing the law, for he granted a reprieve for *fifty-six* years.

PRIVATE HOSPITAL FOR EYE DISEASE.—Dr. Thomas R. Pooley has opened, at his residence, 107 Madison Avenue, a private hospital for eye and ear diseases.

THE ELEVATED RAILROAD CASE AND DR. TAYLOR.—Dr. Charles Fayette Taylor and Dr. Thomas L. Christie sued, some time since, the Manhattan Elevated Railroad for $25,000, estimating this to be the damages to their hospital for nervous diseases, at Fifty-third Street and Sixth Avenue, resulting from the noise caused by the cars of the company. At the first trial the jury disagreed, at the second a verdict was rendered in their favor for $20,000. This verdict has now been reversed on appeal by the General Term of the Superior Court. In the opinion directing a reversal, it was said that the use of the street for railroad purposes was consistent with other uses, and that the damage to property owners must come from the blockading of the street. The estimate of damage must depend upon the lowering of values and loss of rental. The loss of patients resulting from the noise are remote consequences and cannot be taken into consideration. The physicians might have removed to another location, and the loss of patients would not have occurred. As the verdict was largely based on the last consideration, it was held that it must be reversed and a new trial ordered.

A PECULIAR CASE, of much interest to medical men, has recently been decided in the English courts. The plaintiff was the father of a child who suffered from "croup." It being necessary to insert a tube in the child's throat to relieve it from threatened suffocation, the operation was skilfully performed. After the insertion of the tube the physicians requested the father to free it from the accumulated matter with his lips, which he instantly did, the doctors neglecting to tell him that he incurred any risk. The child died, and its disease proved to have been diphtheria, by which the father, in turn, was soon attacked. He sued the doctors for damages. The case was tried twice and was much discussed in the English press. Upon the first trial the jury disagreed. But Lord Coleridge told the second jury that the doctors were right in telling the father to free the tube, and a verdict for the defendants was found.

PUBLIC COMMENTS UPON DR. KOCH.—The Berlin correspondent of the *Pall Mall Gazette* writes: The hero of the hour at Berlin at present is Dr. Koch, the President of the German Cholera Commission, who has just returned from India, where he has discovered the cholera germ. In appearance he is described as of medium height, very thin, with a serious, energetic, *spirituelle* student's face. His beard is brown, but his hair is becoming gray, and this, together with his glasses, makes him seem to be older than forty or forty-one. He studied medicine at Göttingen and afterward pursued his microscopic studies of bacteria at Breslau, under Professor Cohn. Geheimer Rath Koch has been known to the scientific world for some time as a conscientious and accurate observer, but to the non-scientific world his name was unknown until his discovery of the cholera germ. It now promises to be as famous as that of Jenner or Harvey.

PROFESSOR BURT G. WILDER has resigned his position as Professor of Physiology in the Medical School of Maine.

A DOCTOR'S SEMI-CENTENNIAL JUBILEE.—It is the custom in Germany for physicians who reach the fiftieth year of their medical practice to celebrate it. Dr. Bernard Segnitz, of this city, introduced this very pleasant custom into our city by celebrating his own medical semi-centennial last week. The doctor was the recipient of many congratulations and valuable presents. Dr. Segnitz is seventy-four years old, but is in excellent health. He came to this city as a political refugee in 1851, and has practised here ever since.

MORTALITY IN THE STATE OF NEW YORK.—The State Board of Health has commenced to issue a bulletin of mortality for the whole State. Though confessedly imperfect at present, especially for the smaller towns, the returns given are of much interest. Of the cities of over 20,000 inhabitants which are given, the order of healthfulness, as indicated by these returns, was, during the month of April: 1, Troy, with a rate of 6.6; 2, Kingston and Binghamton, 10.8; 3, Watervliet, 12.42; 4, Oswego, 13; 5, Yonkers, 13.09; 6, Rochester, 14.3; 7, Auburn, 15.10; 8, Long Island City, 15.43; 9, Brooklyn, 19.66; 10, Newburg, 19.95; 11, Utica, 20; 12, Syracuse, 20.11; 13, New York, 23.96; 14, Albany, 25.88. We doubt if the above figures are as yet sufficiently accurate to base any safe inferences as to comparative healthfulness on. At any rate, it seems incredible that Troy should really have so extraordinarily small a death-rate as 6.6, while Albany, its neighbor, has 25.88.

THE LEGAL STATUS OF THE MEDICAL DEPARTMENT OF NIAGARA UNIVERSITY.—Dr. A. A. Hubbell, of Buffalo, Secretary of the Medical Department of Niagara University, sends us a copy of a bill, recently become a law, which gives to the University in question full power to confer degrees in medicine. This law seems to settle definitely the question as to the legal status of the medical school.

THE WILL OF THE LATE PROFESSOR GROSS.—The will of the late Professor Samuel D. Gross has been admitted to probate. He bequeaths his medical library, museum, and diagrams to one of the following institutions: The Jefferson Medical College, or the Philadelphia Academy of Surgery, or the College of Physicians of Philadelphia, the choice of said institution to be made by his executor. If the institution so chosen does not accept this bequest, then it is to go to the University of Pennsylvania or the New York Academy of Medicine. He also bequeaths the sum of $5,000 to provide a prize every five years for the writer of the best original essay illustrative of some subject in surgical pathology or surgical practice founded upon original investigation.

THE WOMAN'S MEDICAL COLLEGE OF THE NEW YORK INFIRMARY held its annual Commencement on May 29th, at the University Club Theatre. Degrees were conferred upon nine graduates. Dr. Emma Ward Edwards delivered the address to the graduates.

DEATH OF A NOTABLE PHYSICIAN.—Dr. Samuel Fiske Green, of Worcester, Mass., died on May 28th. Few physicians have the capacity or inclination to accomplish what he did, and his life deserves more than ordinary recognition. He was graduated from the College of Physicians and Surgeons in this city. He began the practice of medicine in Worcester, but after a brief experience abandoned it to enter, from a sense of duty, the service of the American Board of Missions, and to go as a physician to the island of Ceylon, in the Indian Ocean. He soon mastered the Tamil language and established a school at Jaffna for the education of the Tamil youth in the European system of medicine. Having spent ten years in this service he ventured to this country after visiting England and the Continent of Europe on the homeward journey. He subsequently went back to Ceylon and devoted eleven additional years to his work. But the climate of Ceylon injuriously affected his health, and finally compelled him to return to America. He then took up his residence at his native place, Green Hill, but instead of resuming the practice of his profession devoted himself to the compilation of medical works in the Tamil language. The manuscripts of these works he sent to India to be put in Tamil type, and the proofs were sent back to him for correction. His works in Tamil are now recognized as standard authorities. They are on obstetrics, surgery, anatomy, physiology, physic, and chemistry. He had also completed a pharmacopœia of India, which is now in the printer's hands, and prepared the vocabularies of medical jurisprudence which he was about to undertake. In the preparation of these works he expended a vast amount of labor and fully twenty-five years of his life. They were executed with discriminating ability and painstaking fidelity, and with but narrow means at his disposal. The British Government, of which the island of Ceylon is a crown colony, in recognition of his services, made an appropriation, out of which he received a small stipend for the furtherance of his work. The students trained by Dr. Green are sought by the British Government for its Tamil service, and the doctor's name has become a household word among the people of the island. There is on record no more distinguished example of the beneficent results of a life of self-sacrificing devotion to the cause of humanity. Dr. Green possessed a singularly felicitous and pointed diction, and the pages of his works are filled with annotations on the different shades of meaning of words commonly accepted as synonymous. His life was a conspicuous example of self-denial, and of modest and unassuming worth. In his disposition unvarying gentleness and cheerfulness were united with dignity, independence, and firmness. His leisure time was spent in comforting and aiding those about him.

A PHYSICIAN INDICTED FOR MURDER.—Dr. S. G. Allen, Jr., a finely educated and promising young physician, and son of one of the leading physicians of Vermont, is in jail in Boston charged with murder. Dr. Allen, Jr., came to Boston on a visit, and while there went on a spree. While engaged in an altercation in a bar-room he shot and instantly killed an unfortunate man with whom he had been talking. The act was a drunken freak, but its perpetrator is now in jail charged with murder.

AT THE AMERICAN MEDICAL ASSOCIATION.—When the Association was in session in Washington last week a bright Vermont doctor introduced an innocent Indiana physician to the Vermont Senators. The Indiana man was particularly pleased with Senator Morrill because he looked so much like Sumner. "But," said the Vermonter, "Edmunds is the greater man. Besides, he thinks a great deal of doctors." "Why is that?" asked the Indiana man. "Because," replied the Vermonter, "he is an owner of one of the largest tombstone factories in Vermont."

SMALL-POX IN LONDON.—Cable reports state that small-pox is very prevalent in London, and that the city authorities are intending to erect another small-pox hospital.

THE RETURN OF KOCH AND HIS ASSOCIATES.—Dr. Koch and his associates Gaffky and Fischer, reached Berlin on May 3d, and were warmly welcomed by their scientific and medical brethren. A banquet was given them on May 13th. The Government has awarded them the sum of 135,000 marks, and the Emperor has bestowed upon Koch a decoration.

THE AMERICAN NEUROLOGICAL ASSOCIATION holds its annual meeting in this city on June 18th, 19th, and 20th.

THE NEW JERSEY STATE MEDICAL SOCIETY meets at Cape May on June 10th and 11th.

VACCINE AGAINST HYDROPHOBIA.—M. Pasteur claims now to have twenty-three dogs which he has made unsusceptible to hydrophobia by inoculating them with attenuated virus. The virus has been modified by passing it through several animals, especially monkeys and rabbits.

MEDICAL WOMEN ABROAD.—Forty young women have matriculated with the Faculté de Médecine of Paris. Two women from California have recently received their degree from that Faculty. A young woman, a graduate of Berne, has just passed the examinations and been admitted to practise in Belgium. This is the first time a woman has passed these examinations in that country.

A Doctor in Theology.—Dr. William H. Thomson, of this city, has written a work, published by Harpers, entitled "The Great Argument." It is said to be an able and learned contribution to Christian apologetics.

Goltz' Dog.—Professor Goltz has a dog which he evidently wishes to become historical. He showed it before the Congress of Internal Medicine last month as an argument against the present cortical localization theories. He claimed to have removed a large part of the cerebral cortex without producing any permanent paralysis or severe symptoms. Dr. Gustav Fritsch has written a letter to the *Berliner Klinische Wochenschrift* in which he denies the argument of the dog. The whole of a recent issue of the *Journal of Physiology* has been taken up with the subject of Goltz' and Ferrier's dogs, and the proper interpretation of their encephalic losses. Vide op. cit.

Vaccine against Yellow Fever.—Medical science has been treated lately with the announcement of two new protective "vaccines," one against rabies, the other against yellow fever. The discoverer of this latter virus is Dr. Domingo Freire, of Rio Janeiro. He avers that the virus of yellow fever is a vegetable parasite which he names *cryptococcus xanthogenius*. It possesses great vitality and can be inoculated in some of the lower animals. Having alternated this plant, Dr. Freire inoculated four hundred persons with it and rendered them refractory to the fever. Dr. Freire, it will be confessed, must have had persuasive powers of an extraordinary character, whatever may be his scientific attainments. The medical world will await a second bulletin before it accepts the cryptococcus.

THE SIMS MEMORIAL FUND.

To the Medical Profession and Others throughout the World:

The great achievements of Dr. J. Marion Sims call for some more lasting testimonial than obituaries and eulogies. To him medical science is indebted for much brilliant and original work, especially in gynecological surgery. Those who have been benefited by his teachings and new operations, and such as have had the direct advantage of his personal skill are among the first to recognize and acknowledge this debt.

To him is due the honor of giving the first strong impulse to the study of gynecological surgery in America.

It is believed that the medical profession everywhere, the vast number of women who owe their relief from suffering directly to him, and those who realize the benefits he first made possible, will gladly unite thus to honor the man through whose original and inventive genius such blessings have been conferred upon humanity.

At the suggestion of many friends, therefore, the subjoined committee has been organized, and it is proposed that a suitable monument be erected to his memory in the city of New York.

To this end the active co-operation of the medical profession and the many other friends of Dr. Sims throughout the world is respectfully solicited. Contributions of one dollar and upward may be forwarded to the journal which has been constituted the treasury of this fund—The Medical Record, New York.

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Reviews and Notices.

HOOPER'S PHYSICIAN'S VADE MECUM: A Manual of the Principles and Practice of Physic; with an Outline of General Pathology, Therapeutics, and Hygiene. Tenth Edition. Revised by WILLIAM AUGUSTUS GUY, M.B. Cantab., F.R.S., Fellow of the Royal College of Physicians; Late Professor of Forensic Medicine and Hygiene, King's College, London; Consulting Physician to King's College Hospital, etc., etc., and JOHN HARLEY, M.D. Lond., F.L.S., Fellow of the Royal College of Physicians; Honorary Fellow of King's College, and late Physician to the London Fever Hospital; Lecturer on General Anatomy and Physiology at, and Physician to, St. Thomas' Hospital. Volume I. New York: William Wood & Co. 1884.

IT is unnecessary to do more than refer to this standard work, for a book which has maintained an authoritative position for over half a century, and which has been studied and consulted by several generations of physicians, speaks for itself and needs no words of commendation from us. The original work of Dr. Hooper was published in 1823, but it has been revised and practically rewritten so many times, to keep pace with the advance of medical knowledge, that the author, were he to revisit the earth, would find some difficulty in recognizing it as his own. The plan and general arrangement of the subject are his, and as it is here that the practical value of the book resides, it is very justly called by his name. But the matter is the editors'; and we have in this a sufficient guarantee that the high standard of the Manual as an authority is fully maintained. This first volume appears as the May number of Wood's Library, and though we think it would be better were original works only published in this series, we must nevertheless confess that it would be difficult for any writer of the present day to produce a book of such real practical utility as Hooper's Manual.

ECZEMA AND ITS MANAGEMENT: A Practical Treatise Based on the Study of Three Thousand Cases of the Disease. By L. DUNCAN BULKLEY, A.M., M.D., Physician to the New York Skin and Cancer Hospital; Attending Physician for Skin and Venereal Diseases at the New York Hospital, Out-Patient Department; Dermatologist to the Hospital for Ruptured and Crippled; Dermatologist to the Manhattan Eye and Ear Hospital; Late Physician to the Skin Department, Demilt Dispensary, New York; Late Editor of the "Archives of Dermatology;" Translator with Notes of "Neumann's Hand-book of Skin Diseases;" Author of "The Skin in Health and Disease;" Permanent Member of the American Medical Association; Fellow of the American Academy of Medicine; Fellow of the New York Academy of Medicine, etc. Second edition. New York: G. P. Putnam's Sons.

THIS is the second edition of Dr. Bulkley's now well-known work on eczema. The data from some five hundred additional cases are incorporated in the tables, but no changes of importance have been made, the numerous alterations and additions which are found being merely the expression of the author's endeavor to simplify the subject as far as possible. By so doing he has in no way taken from the value of the work, but rather added to it by adapting it more perfectly to the wants of the general practitioner. We are surprised to see the author, who certainly needs no such bolstering, giving countenance by his example to the growing, but nevertheless foolish and useless, custom of tacking on to his name a long list of titles and positions, now or formerly held, some of which can be had by anybody for the asking and the payment of the necessary dues. It is very proper to append to an author's name, on the title-page, such titles as may be of themselves an honor, or which may show that he has a right to speak authoritatively on the subject treated of in his book. But a declaration of membership in the Academy of Medicine, the only qualification for admission to which is a professional age of three years, can serve no such purpose. No one can accuse the author of this book of seeking to advertise himself by the use of a row of meaningless titles, but in the case of some less known and less honored man that would be the, perhaps, uncharitable conclusion arrived at.

A YEAR-BOOK OF SURGERY, for 1883. Edited by CHARLES H. KNIGHT, M.D. New York: G. P. Putnam's Sons. 1884.

IN this book are presented short abstracts of the most important journal articles treating of surgical subjects which appeared during 1883. The selections are well made and embrace a variety of subjects, showing the advances made in surgery during the year. The book itself is printed in clear type, on good paper, and is neatly bound. But in the presence of Braithwaite and the *Quarterly Epitome*, the series of *Year-Books of Medical Progress*, of which this volume forms a part, it can hardly be said to meet a long-felt want, for no such want exists.

ELEMENTS OF HUMAN PHYSIOLOGY. By HENRY POWER, M.B. Lond. Illustrated with forty-seven engravings. Pp. 389. Philadelphia: Henry C. Lea's Son & Co. 1884.

MR. POWER has given us a clear, concise, and altogether very interesting and valuable presentation of the subject of human physiology. Like many other English writers, he has drawn very freely upon Landais; but the book is original in some of its arrangements, and especially in the lucidity with which it deals with many intricate physiological problems. As the present volume is one of a series, the author has omitted such details in histology, chemistry, and practical experimentation as would be found in the other works.

While Mr. Power's work is unquestionably a success, it is a mistake to suppose that it can supplant in any way the standard text-books. It is rather a work for refreshing the student and for instructing the physician who wants to learn modern physiology.

The most unsatisfactory part of the book is that devoted to the nervous mechanisms of the different organs. A considerable part of the chapters on the nervous system is condensed so directly from Landais, that it would seem but justice to give that author some credit.

THE PATIENTS' MEDICAL NOTE-BOOK. Compiled by A. DUNBAR WALKER, M.D., C.M. London: H. K. Lewis. 1884.

THIS little book is compiled for the express object of enabling parents to keep a record of the diseases their children have passed through. The object aimed at is a good one, though it may seem to the lay mind rather lugubrious. The book consists of tables and pages for memoranda, suitably arranged.

RECHERCHES CLINIQUES ET THÉRAPEUTIQUES SUR L'EPILEPSIE, L'HYSTÉRIE, ET L'IDIOTIE. Compte rendu du service des Épileptiques et des Enfants idiots et arriérés de Bicêtre, pour 1881. Par BOURNEVILLE, BONNAIRE, et WUILLAMIÉ. Un volume in-8 de 180 pages, avec 18 fig. et 7 planches en chromo-lithographie. Publications du Progrès Médical. A. Delahaye & E. Lecrosnier, Éditeurs. Paris, 1882.

THE Hospital de Bicêtre contained, in December, 1881, 297 patients, of which 119 were epileptic adults, 78 epileptic children *aliénés*, 29 epileptic *non-aliénés*, and 71 idiots and imbeciles. The present volume is a clinical history of the service during the year. The chapters include "notes and observations upon epilepsy;" hystero-epilepsy in a boy cured; observations upon epilepsy. Much space is given to the history of an epidemic of measles which broke out in the Asylum. The most in

teresting portions are the cases of epilepsy, microcephaly, and idiocy, in which careful post-mortems were made. These are illustrated with several beautiful colored lithographs.

CORPULENCE AND ITS TREATMENT ON PHYSIOLOGICAL PRINCIPLES. By DR. WM. EBSTEIN. Translated and adapted for Popular Reading by EMIL W. HOEBER, M.D. New York: Brentano Bros. 1884.

EBSTEIN'S views upon the treatment of corpulence are familiar to the profession. He believes in a prolonged dietetic treatment of meat and fat, with green vegetables. He proscribes sugar and starch. The treatment is based on Voit's theory that human fat comes chiefly from the albuminates, a theory, which, though widely accepted, may yet be overturned. Ebstein's method as yet stands chiefly upon theoretical considerations.

A MANUAL OF MEDICAL JURISPRUDENCE, with Special Reference to Diseases and Injuries of the Nervous System. By ALLAN MCLANE HAMILTON, M.D. New York: Bermingham & Co.

THERE has long existed, in both the medical and legal professions, a demand for the practical codification of information bearing upon the medico-legal relations of a large number of lesions, involving more or less extensively the cerebro-spinal system. Not that we are without treatises which have for their object the elucidation of the legal application of the medical sciences—such indeed we have. But while some of these works are explicit with regard to the medico-legal aspects of mental diseases, they fail to give adequate prominence to the forensic questions liable to arise in cases of spinal injury, epilepsy, and many neurotic affections. The consequence of this state of things is, that where special information is required upon individual points, it must be sought after in the files of journals, or in the pages of inaccessible monographs. In the work before us we find these deficiencies in a great measure remedied. The modest table of contents affords, indeed, but a meagre idea of the amount of information which Dr. Hamilton has been able to compress within the compass of about three hundred and eighty pages. It is only when we examine the excellent index and carefully con over the leaves, that we become aware of the exhaustive manner in which these disorders of the nervous system, which give rise to litigation, have been treated.

We do not agree with the author, that the two definitions of insanity "that are the most satisfactory are those of Bucknill and Maudsley." Nor do we believe that "a man who declares himself an agnostic is apt to injure his case and render himself ridiculous," when called to the witness stand to testify as a medical expert. As well might it be affirmed that, because a man's hair is black, or his eyes blue, he is therefore debarred from the confidence of the community at large. This is certainly poor logic and narrow philosophy.

Dr. Hamilton cannot countenance the views of Kraft-Ebing and others regarding the more delicate shades of mental disorder (primäre and originäre verücktheit). On this point he says (page 62): "I regard many of these delicate distinctions as founded upon a too sentimental plane, for, if we are to excuse men who are simply *bad* for the crimes they may commit, we shall open the doors of escape for all manner of wickedness." If Dr. Hamilton will examine the description given by Kraft-Ebing, he will find that there underlies what he terms "bad," a complex psychological substratum—a mental condition as morbid as it is complicated. How are we to refuse to recognize—to repudiate this mental pathology simply because the outgrowth of the same is "bad?" As conscientious laborers in the cause of scientific psychiatry it is impossible.

The chapter on spinal injuries is excellent, as is also that which treats of cranial injuries. Taken as a whole, this little work must be regarded as an exceedingly practical contribution to medico-legal literature. Moreover, it has the distinctive quality of being written in such a manner as to be perfectly intelligible to the general medical reader.

INSANITY CONSIDERED IN ITS MEDICO-LEGAL RELATIONS. By T. R. BUCKHAM, A.M., M.D. Philadelphia: J. B. Lippincott & Co.

As the author explicitly states in his preface, the chief object of the present work is to point out the pernicious uncertainty of verdicts in insanity trials, with the hope that by calling attention to the more prominent causes of that uncertainty, some of the more objectionable features of our medical jurisprudence may be removed.

By the aid of the *physical media* theory, our author hopes to accomplish this eminently desirable end.

As is well known to psychologists, the "physical media" theory maintains that mind is a "distinct, intangible, incorporeal entity," not dependent upon organized matter for its existence; but simply beholden to the latter for its manifestation "in this life." In other words, mind does not owe its existence to the disintegration of brain-tissue, but only its manifestation. Upon the assumption that he has proven the validity of the "physical media" theory, our author frames the following definition of insanity: "A diseased or disordered condition, or malformation of the physical organs, through which the mind receives impressions, or manifests its operations, by which the will and judgment are impaired, and the conduct rendered irrational." And as a corollary to this he offers: "Insanity being the result of physical disease, it is a matter of fact to be determined by medical experts, not a matter of law to be decided by legal tests and maxims." So then, since mind is only *manifested* through the brain, and since our author affirms that insanity is an abnormal condition of the physical organs, through which the mind manifests its operations, we are led inevitably to the sufficiently astounding inference, that insanity is not a pathological mental condition, *per se*, but simply a morbid *manifestation* of an otherwise healthy "intangible, incorporeal entity."

This is, indeed, a fantastic compromise between metaphysics and disjointed physiological conceptions. Such spavined logic will never do, either in court or out of it.

The author, however, deserves credit for the fearlessness and confidence with which he advances his opinions. Moreover, he has contrived, in the discussion on the nature of mind, and in the subsequent chapter on "experts," to introduce much interesting information.

This book will prove an acceptable addition to the library of those interested in psychological matters.

PRINCIPLES OF THEORETICAL CHEMISTRY, WITH SPECIAL REFERENCE TO THE CONSTITUTION OF CHEMICAL COMPOUNDS. By IRA REMSEN, Professor of Chemistry in the Johns Hopkins University. Second Edition, thoroughly revised and enlarged, pp. 242. Philadelphia: Henry C. Lea's Son & Co. 1883.

STUDENTS who wish to gain an idea of the general principles of chemistry and of the composition of chemical compounds, will do well to consult this book. It is expository rather than didactic, and is more interesting on that account to the searcher for knowledge. It is a work which ought to supplement well the ordinary text-books.

QUARTERLY COMPENDIUM OF MEDICAL SCIENCE. A Synopsis of the American and Foreign Literature of Medicine, Surgery, and Collateral Sciences. Edited by D. G. BRINTON, M.D., and JOSEPH F. EDWARDS, M.D. January, 1883. Fourth Series, No. I., pp. 576. Philadelphia, 1883.

WITH the present number this valuable compendium will be issued quarterly instead of half yearly. It furnishes a most excellent summary of medical progress, and we are glad to find that its work is to be made still more comprehensive.

Reports of Societies.

PRACTITIONERS' SOCIETY OF NEW YORK.

Stated Meeting, May 2, 1884.

ROBERT F. WEIR, M.D., PRESIDENT, IN THE CHAIR.

DR. V. P. GIBNEY read a paper (see p. 629) on

THE TREATMENT OF SCIATICA.

DR. BEVERLEY ROBINSON had treated all of his cases of sciatica with familiar methods except one, in which he resorted to stretching the nerve with benefit. So far as his limited experience went he would say that the use of the actual cautery, latterly the thermo-cautery, had given the best results, especially in relieving the pain. Probably he had not pushed the use of galvanism and faradism as far as one would who had a special inclination toward that method of treatment, but he had used it sufficiently to convince him that it was not so successful as the use of the cautery.

He had relieved patients from the liability to recurrence of attacks by the use of deep hypodermics of morphine. Chloroform had acted unfavorably in his hands. He had treated sciatica with blisters and tincture of iodine without notable effect, but with the actual cautery and deep injections of morphine he had obtained his best results.

DR. C. L. DANA said that he had notes of thirty cases of sciatica, some of which he had treated with electricity and others without electricity, at least in a systematic manner as described by Dr. Gibney. So far as electricity was concerned, he had tried Dr. Gibney's method and had had the same experience; that is, some of the patients went out shaking the leg and feeling almost well for a time, but they generally got worse toward night, and on the following day again suffered from the pain; but by keeping up the application of electricity daily the pains were finally relieved permanently within a few days. He had, however, had some cases in which this plan of treatment had not done any good whatever. In the majority of his cases the patients had had rheumatic tendency, and perhaps that was the reason why they did not respond so well to the galvanic current.

He had not attempted to pay very much attention to the poles, but he had used usually the descending current. He had not tried faradism. The cells which he had used were zinc and carbon cells, and he had obtained the same effects as those described by Dr. Gibney. He had also used the gravity cells. He would not advise any one to get the Leclanché battery, because it soon runs down and gets spoiled. Theoretically the best battery was the gravity, because the internal resistance is about equal to the internal resistance of the body, and they balance each other. Theoretically, also, this was a practical point, and one which had already been referred to by Bartholow.

Aside from electricity he had used blisters, which had given more relief than any of the external applications which he had employed. He thought that if two or three blisters were placed along the course of the nerve, almost uniformly, the pain would be relieved.

Next to blisters came subcutaneous injections of morphine and atropine. He had used chloroform, but without good results. He had also injected the oleate of aconitia in one case with marked benefit. He had given aconite internally without special result. The internal remedy which had served him best was the oil of turpentine, a few drops administered three times a day in cases of pure sciatica, and also those with rheumatic pain. In the cases in which there was rheumatic pain the oil of gaultherium, with turpentine, was certainly very effective, and these remedies, with blisters, had, in his hands, produced relief within a short time.

Whatever the treatment might be, however, relapses were apt to occur, and, after all, patients did not get wel much before the regular time in which the disease reached its natural termination. He had used the tincture of gelsemium in one case, and it cured the patient quickly. Dr. Dana thought that what was needed most was some means of determining the pathology of the affection; whether or not it is a pure neurosis.

DR. W. J. MORTON knew of scarcely any disease which he had treated more frequently, or which had given him more trouble in treating satisfactorily, than sciatica. He agreed with Dr. Gibney concerning the special form of treatment, but it did not seem to him that it would meet with success in all cases. He thought that the first thing to be determined was the nature of the disease, as there are so many forms of sciatic pain. An acute attack, which is generally referred to some form of exposure, is generally due to a neuritis, but this variety constitutes only about one-third of the cases. He first endeavored to make up his mind as to whether the case was neuralgic from anæmia and other causes, and if so the treatment must be pursued accordingly. The ordinary sciatica he saw frequently, and immediately proceeded to treat these cases by the use of internal remedies, such as cod-liver oil, iron, caffein, perhaps stimulants, small doses of morphine, pushing the remedies as the patient could bear.

But, as a rule, the cases with which he had had to deal had been either of the rheumatic or neurotic type from exposure, and in these two classes of cases he had restricted the treatment to the use of electricity and counter-irritation.

One of the first cases in which he stretched the nerve taught him a good lesson. It was a well-recognized case in Roosevelt Hospital, and the condition of the nerve was peculiarly striking. It was swollen larger than his little finger, red, congested, and covered by tortuous veins, and in a condition of active neuritis. He stretched the nerve and the man was cured, but he had not stretched a sciatic nerve since. He had been in the habit, in these cases of acute sciatica following some exposure, almost invariably of resorting to subcutaneous stretching of the nerve, which gives rise to very great pain; but as soon as working of the limb was over it was followed by very great relief, and following it up seven or eight days with another manipulation, these patients get well.

He had great confidence in counter-irritation, and the form he usually selected was the thermo-cautery applied in a hundred or a hundred and fifty places along the course of the nerve. He also believed in blistering, and had tried wet-cupping. Usually, however, he used dry-cups, applying a very large cup immediately over the sciatic notch, applying an air-pump so as to make a large ecchymotic spot.

As to treatment by electricity, he had been in the habit of using the faradic current, in rheumatic cases, in the shape of a brush. He had used static electricity, but would not think of treating the acute cases by this method. In those cases which seemed to be associated with rheumatic diathesis, with a great deal of stiffness and general soreness, he had found that static electricity had given relief, as had other remedies, lasting possibly for twelve or fourteen hours; but he did not see any special advantage in the use of static electricity in the treatment of sciatica.

There was one reason which would induce him, aside from what Dr. Gibney had said, to resort to the strong galvanic current, and it was as follows: within three months he had had three cases of neuritis in the distribution of the radial nerve, each with a tolerably similar history; that is, violent strain, a spot of extreme tenderness in the distribution of the nerve, swollen fingers, tolerably anæsthetic, and the seat of dull, aching pain increased on use, with a disposition to extend upward so that the pain had reached as high as the elbow. He had treated those cases with galvanism, and in one resorted to

what seemed to him to be a novel feature; that is, he applied the thermo-cautery at six or eight spots sufficient to break down the epidermis, and then applied a very strong current which could be passed directly in the line of the nerve. It was the additional advantage afforded by breaking the epidermis that enabled him to apply the electrical current to the actual point in which the neuritis was situated, and in these cases of neuritis of the radial nerve it was employed successfully. The patients seemed to be practically cured, although it was too soon to determine what the ultimate results were to be.

THE PRESIDENT referred to two cases which he had treated by stretching the nerve subcutaneously, according to Nussbaum's method, in one of which relief was quite permanent, but in the other the pain returned in a short time.

DR. DANA asked Dr. Weir if in any of his cases there was evidence that the function of the nerve had been impaired, as there is after a surgical operation.

THE PRESIDENT replied that there was no evidence except burning sensation in the foot.

DR. GEORGE F. SHRADY had tried forcible subcutaneous extension in one case at St. Francis' Hospital. He etherized the patient, but did not care to bring the tibia in contact with the chin or ear, because he felt something give way in the leg, and it seemed to him to be rather a heroic operation. The patient was relieved for a week, and at the end of that time he left the hospital.

DR. MORTON asked if any of the members had had any experience in breaking the skin before applying the electrodes.

DR. DANA had not tried it, but it seemed to him that removing the skin would make it more tender and would not admit of the use of the strong current.

DR. MORTON said the cautery simply charred the epidermis without breaking through the skin.

DR. SEXTON remarked that the conversation suggested a point of inquiry, namely, whether one current is more efficacious than the other.

DR. GIBNEY remarked that, so far as his own cases were concerned, he had applied the descending current. He was not certain that one current was better than the other, but it had seemed to him that he had not obtained as satisfactory results with the ascending as with the descending current. Most of his cases were chronic, extending over a period of six or seven years; but he saw the patients during exacerbations, and thought that if the exacerbation could be relieved within a week it was good evidence that there was some relation between the treatment and the result. Of course general treatment had been adopted in rheumatic cases, or other general conditions. But in the cases to which he referred especially, the treatment consisted in the use of galvanism alone. He had been able to follow the history of some of the patients, and he was quite sure that they had not had severe exacerbations after the regular course of treatment.

EUSTACHIAN CATHETER.

DR. SAMUEL SEXTON presented a new flexible Eustachian catheter, manufactured by Ford, with which he had been able to relieve acute middle-ear trouble by drawing out the secretions into the pharynx. The method had been to introduce the catheter, apply a syringe, and draw the secretions from the middle ear into the mouth, and in that way he had succeeded in relieving all the symptoms entirely. He thought that in certain cases this procedure would be very desirable. While he thought it probable that the method had occurred to the minds of aural surgeons, he believed that no case had been previously reported in which it had been done. With a flexible catheter having a peculiar shape, he had been able to enter the orifice of the Eustachian tube without difficulty, while, as was well known, it was frequently difficult to perform this operation with the metallic catheter.

The Society then adjourned.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, May 14, 1884.

GEORGE F. SHRADY, M.D., PRESIDENT, IN THE CHAIR.

REPORT OF THE COMMITTEE ON MICROSCOPY.

DR. W. P. NORTHRUP, from the Committee on Microscopy, reported concerning the specimen of broncho-pneumonia simulating tuberculosis which he presented at the last stated meeting. Microscopic examination determined that it was broncho-pneumonia, and not tubercle, although the specimen presented very much the same gross appearance as that presented by the lungs which contained undoubted tubercles. The bronchioles were filled with pus, there was well-developed peribronchitis, and the alveoli in the immediate neighborhood contained pus cells with more or less fibrillated fibrin. The specimen, therefore, was one of broncho-pneumonia, or, as it had been termed by some, persistent broncho-pneumonia without tuberculosis. Dr. Northrup thought it impossible to determine in all cases, from gross appearances, whether or not tubercle is present.

DIPHTHERITIC COLITIS OCCURRING IN THE PUERPERAL STATE.

DR. E. L. PARTRIDGE presented, in behalf of Dr. Nelson H. Henry, candidate, a specimen, with the following history, by Dr. R. H. M. Dawbarn, House Physician at the Nursery and Child's Hospital.

Lizzie C——, twenty-eight years of age, confined April 12th, 11.20 P.M., with her second child. The labor was entirely normal in all respects, and she did well until the night of April 18th, when, immediately following a vaginal douche, she was seized with a severe chill lasting twenty minutes. The temperature, taken directly after the chill, was 102° F., and there was at the same time some pain and tenderness in the left hypogastrium. An ice coil was applied to the abdomen. The next morning the temperature was 99° F. (coil removed at 100° F.). The abdomen no longer sensitive. Pulse 85, and good all this day.

Ten grains quinine, and a dose of compound licorice powder were given, as the bowels had not moved for thirty hours. She seemed well and cheerful as usual all this day, but during the succeeding night, and while a vaginal douche was being given, a second and even more severe chill set in and lasted half an hour. The chill began half an hour later than the one on the preceding night. The douche was stopped, but a few minutes later the patient said she thought she must be urinating, as she felt something running. The nurse found the bed about the patient's hips soaked with blood, which was flowing from the vagina. A hot-water douche (120° F.) was at once given, which checked the flow somewhat, but it required two more, at intervals of a few minutes, to entirely stop it. Amount of blood lost, probably between eight ounces and a pint.

There was with the second chill, as with the first, some pain in the hypogastrium, this time on both sides; temperature 102° F. Next morning the temperature was about 98° F. Early the following day the patient had a bloody movement from the bowels, with a little pain, but no tenesmus; and during the day had seven or eight discharges, each containing fluid blood in varying amounts from ℥ ss. ℥ ij.

The abdomen was not sensitive a few hours after the chill, nor was it at any time tympanitic. The stomach was in good order—no nausea. During this day, April 20th, the temperature was between 97⅘° and 98° F., taken under the tongue.

The extremities grew constantly colder, notwithstanding that hot bottles were used. Four hours before death the temperature taken in the axilla was 105.8° F., but the tongue and breath were cold, and the temperature under the tongue was 97° F. At the time of death the axillary temperature was 104° F. The pulse, which was normal

the evening before, went up to 120 on the morning of the 20th, and grew steadily weaker and more rapid until death, when it was about 180.

The respirations were normal throughout. Mind perfectly clear up to within an hour or two of death, which took place in a state of stupor. Secretion of milk continued active up to time of death. The lochiæ continued, and were not ill-smelling. A vaginal examination made after the second chill showed the os to be patulous; the uterus in a condition of moderate procedentia—the cervix being within two inches of ostium vaginæ.

Stimulants (whiskey and carbonate of ammonia) were freely used. She died April 21st, at 4.15 A.M.

N.B.—The douches in this hospital are given twice in twenty-four hours. They are tepid and contain corrosive sublimate gr. iv. to Oj. (1 to 2,000).

Résumé.—Was confined on the 12th, late at night. Did well until the night of the 18th, when the first chill occurred. On the night of the 19th, at about the same time, the second chill set in, accompanied by hemorrhage from the vagina, which, however, was permanently checked in an hour. Early on the morning of the 20th bloody stools began, and continued till death. The temperature was normal on the day after the first chill, and normal and subnormal (under the tongue) on the day after second chill. But the temperature in the axilla four hours before death was 105.8° F. She died April 21st, at 4.15 P.M.

Autopsy.—Thirty hours after death. Well-marked rigor mortis. Body very well nourished. Lungs: a moderate amount of congestion and œdema. The pericardium contained about two ounces of bloody serum. The heart was normal in size, but its structure seemed soft and flabby; the valves were competent; the cavities contained small dark clots; the endocardium was deep-stained. Spleen slightly enlarged, soft, and easily torn. Liver congested moderately. Kidneys normal. There was no distention of the abdomen; no evidence of peritonitis; the covering of intestines appeared of normal lustre. There was no cellulitis. The mucous membrane of the vagina was somewhat swollen and hyperæmic, but showed no exudation. The cervix was flabby, with some œdematous infiltration of the tissue, and evidence of slight contusion. The uterus had a firm feel, was of about normal size; the interior surface was thinly coated with a small amount of exudation, most abundant over the placental site. There were no clots, and no offensive odor. The stomach and upper portion of the small intestine were normal. The mucous membrane of the lower portion of the ileum was congested; Peyer's patches were swollen, and this condition increased quite rapidly toward the ileo-cœcal valve. The mucous membrane of the entire extent of the large intestine was intensely congested and swollen; its color varied from a scarlet to a livid red or purple, and certain areas had a dirty chocolate color. The solitary follicles were swollen. This intense hyperæmia was quite uniform, but most marked in the cœcum and hepatic flexure, and again in the sigmoid flexure. In portions of the cœcum there was a finely granular appearance. The large intestine contained a dirty, reddish-brown fluid, apparently blood and pus, in large amount, and gave a peculiarly offensive odor.

DR. LEVI presented, in behalf of a candidate, a specimen of *tuberculosis of the endometrium*. The specimen was referred to the Committee on Microscopy.

DR. W. P. NORTHRUP presented a single set of specimens which illustrated the history of two cases that were nearly alike.

(1) DOUBLE PLEURO-PNEUMONIA, WITH PERICARDITIS; (2) DOUBLE PLEURO-PNEUMONIA, WITH PERICARDITIS AND PERITONITIS.

Two children, females, aged respectively seven and five months, inmates of the New York Foundling Asylum, were taken sick on the same day, and one lived eight days and the other nine days. At the time the children were taken sick there was an abrupt change in the weather, from warm to very damp, chilly, and raw atmosphere.

In both there were about four ounces of grayish, yellowish fluid, containing flocculi of fibrin, in the right pleural cavity, and a thick layer of fibrin upon the visceral and parietal layers of the pleura, somewhat encapsulated. In front there was a thinner layer of fibrin. In both, the left pleural cavity contained a somewhat smaller quantity of fluid of the same character, and the fibrinous exudation did not extend quite so far in front as upon the right side. The same fact held good with reference to the lung in each case; that is, the pneumonia upon the right side was a little more marked than on the left side. The second child, in addition to the double pneumonia, had well-marked pericarditis, much better marked than in the first child, and also well-marked peritonitis.

The specimen was of interest, because the children had neither had measles nor scarlet fever, were nursed children, inmates of the same ward, and were suddenly taken with pneumonia, which was due probably to change in the weather.

DR. LEVI remarked that one difficulty in accepting cold as the cause of the pleuro-pneumonia in these cases was the very fact that three of the serous membranes were affected in one of the patients.

GENERAL TUBERCULOSIS, INCLUDING THE UTERUS.

DR. LEVI presented, on behalf of Dr. C. G. Currier, candidate, a specimen with the following history: Miss A. M——, aged twenty-six, native of Ireland, servant, had a good family history, without any trace of tubercle or carcinoma in the family.

She was in perfect health until one year ago; then had pleurisy of the right side, from which she recovered completely. At New Year (1884) pain and swelling in the feet appeared at a menstrual epoch, since which she has not menstruated. At this time she first experienced pain in the abdomen, more or less constant, sharp, and cutting; the abdomen appeared to be increasing in size. She also lost flesh and strength.

On admission she was remarkably weak and emaciated, her appearance cachectic, and abdomen distended. To the right of the umbilicus there was a protuberance, three inches in diameter, with contents of semifluid consistency. Umbilicus did not protrude. Over the suprapubic region flatness on percussion prevailed; while in the central portion of the abdomen there was modified resonance, but at no point flatness. A needle inserted deeply just to the right of umbilicus withdrew no fluid. The liver dulness extended from just below the nipple to one inch above the costal edge. The splenic area not enlarged. Three days later, April 13th, the protuberance to the right of the umbilicus was more marked, slight fluctuation was felt, and on April 15th the abscess ruptured, from which several ounces of foul-smelling pus escaped. The patient was much relieved. Peat-dressing was employed. April 18th, the patient was better, but had much foul discharge. Ether was administered, and she was examined by vagina. The left labium was œdematous; the cervix elongated and flattened, and uterus fixed. Rectal examination revealed a doughy mass, of the size of a fist, close to the left of the rectum. Parts otherwise normal.

The opening of the abscess through the abdominal wall was enlarged two inches in each direction and found to communicate directly with the peritoneal cavity. The intestines were fully exposed to view; the visceral and parietal surfaces of peritoneum were covered with a thick membrane. The cavity contained much foul pus, mixed with sloughs and masses of decomposing membrane. The intestines were firmly matted everywhere. A probe could be passed downward toward either ileum for a distance of about six inches. The cavity was thoroughly irrigated with a solution of corrosive sublimate

(1 to 1,000). Peat-dressing and bichloride antiseptic gauze were applied.

April 19th, slight improvement. Very weak. Temperature 99° F.; pulse, 110; respiration, 20. The dressings were frequently changed, being constantly fouled by offensive and copious discharge. Free stimulation was required. April 25th, since last note has steadily grown worse, is rapidly emaciating. Cardiac action was sustained with difficulty, and uncontrollable diarrhœa set in. Temperature, 96° F; pulse, 130 to 150. April 28th, involuntary fæcal evacuations. Discharge from abdominal cavity seemed fæcal. Temperature 94° F., pulse, 160. Food and stimulants were rejected.

April 29th, 11.30 A.M., patient quietly died.

Autopsy, twelve hours after death.—Mediastinum showed enlarged cheesy glands. Heart small; left ventricle slightly dilated. Pleuræ filled with loose membranes, and at the anterior basal portion of the right pleural cavity a large cheesy mass was seen. Numerous tubercles on pleural surfaces and throughout lungs. A few peribronchial cheesy masses. Spleen normal in size, with few tubercles in its substance. Kidneys anæmic, with a few tubercles in their cortical portions. The liver showed acini, congested at their centres, the outer portions were fattily degenerated. Cheesy masses in substance of liver. The other abdominal contents were matted together in a very foul-smelling mass with cheesy and tubercular nodules. The intestines could not be disengaged as they were very friable, and presented evidence of recent inflammation, with a few tubercles on surface. The bladder and vagina were free from tubercles.

The tissues surrounding the uterus formed an irreducible mass of cheesy and tubercular inflammatory exudation. The uterus presented an ulcer of the cervix with tubercular basis. The endometrium presented false membrane with tubercles underlying.

The brain was free from tubercles.

SUBMUCOUS FIBROID OF THE UTERUS—REMOVAL WITH THOMAS' SCOOP—PERFORATION OF THE FUNDUS OF THE UTERUS—DEATH OF THE PATIENT.

DR. C. C. LEE presented the uterus and a portion of a submucous fibroid removed from the body of a woman who died under his care while attempting to remove the tumor by a method which had been ordinarily regarded as safe. The patient was forty years of age, was admitted to his service in the Woman's Hospital April 19th, with a history of excessive metrorrhagia and menorrhagia extending over a period of fifteen years. She began to menstruate at seventeen, and up to a number of years afterward showed no sign of ill health at the menstrual periods. But about fifteen years ago she began to exhibit evidence of excessive loss of blood each month, and suffered from intercurrent hemorrhages, which had been ascribed to different causes. Her attending physician had diagnosticated the case correctly, and she had also been seen by Dr. Hanks, who referred her to Dr. Lee. The tumor filled the entire upper segment of the uterus, and the womb was enlarged to the size usually seen at the seventh month of pregnancy. After several ineffectual attempts to dilate the uterus properly he succeeded finally under an anæsthetic, and proceeded to remove its contents. The organ was excessively anteverted, and it was so difficult to bring the uterus into the straight line that the operation was performed only with very great difficulty. The tumor was sessile, and occupied the entire fundus of the uterus, extending down to within one-half inch of the internal os, but not perceptible to the touch until the cervical canal had been thoroughly dilated. When the fibroid had been brought into view it was found to be impracticable to embrace it with the écraseur or reach it with the scissors, and an effort was therefore made to remove it by the method devised by Professor Thomas, namely, by means of the serrated scoop. The cervix was split bilaterally, and the internal os was divided sufficiently to give space for working, and then the tumor was grasped with the vulsellum and drawn down. While held in this position Dr. Lee endeavored to insinuate the scoop between the surface of the tumor and the inner surface of the uterus, which he found exceedingly difficult to do on account of the anteversion. The house-surgeon, who assisted while making counter-pressure, constantly informed him that he could not feel the end of the scoop. It seemed quite evident to Dr. Lee that he had not reached the uterine wall, yet he continued to work, but unsuccessfully, and he finally determined to cut the tumor away piecemeal. He therefore removed several pieces, cutting away only the portion embraced in the forceps, until he finally reached the base of the tumor. Then came the procedure which led to the woman's death. Although the instrument when it deals with pedunculated fibromata is an admirable one, it, in this case, cut through the uterine wall in two places, and led directly to the patient's death by intraperitoneal hemorrhage, and this occurred without Dr. Lee being able to determine that he had left the neoplasm and entered the uterine wall itself.

He exhibited the specimen because of the practical lesson which it taught. He had notes of six cases in which he had removed large tumors from the uterus with this instrument, and with no bad effect. He had supposed it impossible to do damage with the serrated scoop. Since the unfortunate result in his case he had found upon the records of the Woman's Hospital two cases in which a fatal result had followed its use; one case under the care of Dr. Thomas, and the other under the care of Dr. Hunter, and in both the uterine wall was perforated by the instrument and produced a fatal termination. In his case the patient never fully reacted, and died twelve hours after the operation. At the autopsy the pelvic cavity was found filled with fluid blood and clots, the uterus was intact in the region of the cervix, but at the fundus there were found two openings, evidently made by the instrument, which were jagged and filled with clots. Within the uterus was a mass of the tumor which he had failed to remove.

Dr. Lee deemed it impossible by any method yet devised to operate for the removal of these tumors without some danger to the life of the patient, and he thought that the result in this case and the others which had occurred at the Woman's Hospital should be known in order that patients afflicted with this disease might be warned more fully than had heretofore been done of the danger attending operations for their relief. He was entirely unconscious that he had perforated the uterine wall. The malposition of the uterus probably had very much to do with the occurrence of the accident.

CEREBRAL HEMORRHAGE—ANOMALY OF THE AORTA.

DR. FRANK FERGUSON presented specimens removed from the body of a man, aged twenty, a native of the United States, and a clerk by occupation. He had to attend to business, and was entrusted with the keys of the store in which he worked.

When the head of the firm arrived at 10 A.M., on the morning of the 11th inst., the door was found locked, and the man whose duty it was to attend to the business was found in a water-closet, unconscious, paralyzed on the right side, both hands clenched, breathing heavily, and frothing at the mouth.

On examination at the House of Relief the pupils were found equal, and not responsive to stimulus; there was paralysis of the entire right side, less marked in the right upper limb; unconscious; urine negative; respiration slow and stertorous; pulse regular, and sixty-four beats to the minute.

He continued in this condition until the following day, when the right pupil became much dilated, the left side became paralyzed; his temperature rose from nor-

mal (his condition on admission) to 108° F. just before death, which occurred at 5 A.M., May 14, 1884.

Autopsy.—All the organs were normal except the brain, which was the seat of hemorrhage. The hemorrhage on the surface involved the island of Reil, all the convolutions were completely flattened, and it also involved the white matter of the temporo-sphenoidal lobe. The hemorrhage had destroyed the large ganglia at the base of the left hemisphere.

The case was of considerable interest in view of the fact that with cerebral hemorrhage the blood-vessels are diseased in a majority of cases, and associated particularly with renal affections. But in this instance the kidneys were perfectly normal, and there was no evidence of disease of the blood-vessels. The heart showed small hemorrhages beneath the pericardium, not infrequently observed in connection with high temperature.

The anomaly in the case was in the condition of the aorta, which was at least one-third smaller than it should be, and the diminution in size was throughout. The vessels given off from it were rather smaller than normal, but were large as compared with the calibre of the aorta itself. Why he attached any importance to this fact was because he had seen another case of cerebral hemorrhage, occurring in a young woman, twenty-two years of age, within three months, whose aorta was a trifle larger than the one presented, but the cerebral hemorrhage occurred independent of pachymeningitis, or disease of the vessels. Whether in these two cases the occurrence of cerebral hemorrhage, independent of pachymeningitis, or disease of the vessels, was a coincidence, he had not been able to determine. He felt quite sure that the hemorrhage was not due to thrombosis or embolism.

DR. NORTHRUP remarked that it seemed to him the aorta was certainly diminished one-third in size, and it was quite probable that the average aorta would measure twice as much in diameter as the specimen presented.

DR. FERGUSON remarked further that the iliac vessels were nearly of the normal calibre.

DR. W. H. PORTER had seen one case of cerebral hemorrhage in a young man of twenty to twenty-five years of age, who had suffered from malarial poisoning. In that instance there were multiple hemorrhages into the brain and spleen. He thought it possible that the chronic malarial poisoning might have produced some effect upon the walls of the blood-vessels and given rise to the hemorrhage.

DR. AMIDON remarked that the gross appearance of the hemorrhage was of that due to miliary aneurism, but the patient was too young for the occurrence of this lesion.

DR. VAN SANTVOORD thought it possible that the lack of development in the aorta indicated a general lack of arterial development throughout the body, and therefore the blood-vessels were more liable to give way than when the normal condition of the arteries existed.

DR. LEVI thought the condition of the aorta was well taken, and that the small aorta went far to explain the occurrence of the cerebral hemorrhage, from the fact that the normal elastic coil had no time to take place, and the circulation in the capillaries was interfered with, which, in connection with straining, would subject the capillaries to a greater amount of pressure than they would be subjected to in the normal condition.

DR. W. H. PORTER said that the rate of pulse (64) indicated that the pressure was less than it would be in a normal aorta.

DR. LEVI thought that with the absence of elastic coil the quantity of blood sent forward would be increased.

DR. J. C. PETERS referred to a case of apoplexy occurring in a man forty-five years of age, well developed, and apparently due to very great mental emotion, the patient restraining himself under provoking irritation. Before the seizure he was apparently perfectly well, and had not been guilty of any imprudence. The patient died within four hours after the attack.

DR. CARPENTER asked Dr. Ferguson if he had seen a a small aorta *without* cerebral hemorrhage.

DR. FERGUSON said that he had not, and that at one time he made observations in six hundred cases with reference to anomalies of the circulatory system, but did not encounter the condition exhibited in the specimen presented.

DR. CARPENTER remarked that he had seen a case in which the aorta was very much below the normal size, not so small, however, as the one presented by Dr. Ferguson, and the patient died of disease other than cerebral hemorrhage.

FATTY LIVER WITH CIRRHOSIS AS A COMPLICATION.

DR. GEORGE R. ELLIOTT presented a specimen, with the following history furnished by Dr. H. J. Boldt: "Male, aged forty-eight years, married; butcher by occupation. He claims never to have indulged to excess in alcohol, and gives no history of syphilis. He was perfectly well up to September 1, 1883, when he had an attack of chills and fever, after which he noticed his stomach increasing in size and his breathing growing more and more difficult. His case was diagnosticated by the physician who saw him at that time as cancer of the liver. In April, 1884, I saw him him for the first time, and withdrew by aspiration thirteen pints of fluid from the abdominal cavity. I aspirated twice subsequently. Urine at no time contained anything except urates. He died May 12, 1884, from apparent exhaustion." Autopsy was made by Dr. Boldt, twenty-four hours after death.

Dr. Elliott had examined fresh microscopical sections of the organs and found the heart in a moderately fatty condition—the striations of the muscular fibres being in many places obliterated by fat. The kidneys were very large; capsules non-adherent; surface smooth; considerable connective tissue increase, and the epithelia are very granular both in the cortical and medullary portions. The *liver* weighed ten pounds. The surface presented a slight granular appearance. Upon microscopic examination an excessive amount of fat was found, appearing to replace entirely the hepatic cells; also, distributed very generally throughout the organ a moderate amount of foreign connective tissue—the latter was mostly in the form of round and spindle cells, very little being fibrillated. He regarded the fatty condition, the primary lesion, and the cirrhosis as a complication; the large size of the liver was undoubtedly due to the great excess of fat. He did not consider it an example of what is known as hypertrophic cirrhosis; in that condition we have a very large amount of young connective tissue, while here that tissue is not at all abundant. The spleen was but slightly increased in size.

DR. PORTER said he had an opportunity to examine specimens from the liver presented by Dr. Elliott, and was of the opinion that the primary change was fatty infiltration.

The Society then went into executive session.

THE PHYSICIAN'S PRAYER.—Dr. W. W. Hewlett, of Babylon, L. I., writes: "Your number of May 24, 1884, contains a form of prayer which 'B' states was found among the papers of the late Dr. C. F. Couch, of Petersburg. Permit me to inform your correspondent and other readers of THE RECORD who may be interested, that that beautiful supplication was composed by Dr. John Mason Good, and may be found in a sketch of the author's life which is prefixed to the stereotyped edition of the 'Book of Nature,' published by the Harpers in 1831."

Correspondence.

RECTAL ETHERIZATION.

To the Editor of The Medical Record.

Sir: In view of the recent interesting articles in The Record on the subject of etherization by the rectum, and believing that the value of this novel method of inducing anæsthesia can only be effectively determined by the profession at large in their manifold and diverse experience, I thought it might not prove uninteresting to present succinctly an account of the two following cases in which etherization was induced by this method.

I was first enabled to employ this method (May 15th) through the courtesy of Dr. Hazen, the visiting physician, in a case of senile cataract, in which I operated by von Graefe's method.

My apparatus consisted of a common four-ounce, wide-mouthed bottle (with scratches on it indicating ounces and half-ounces), through the perforated cork of which the distal extremity of an ordinary Davidson syringe, the valves of which were temporarily removed, was passed; to the proximal end an ordinary vaginal tube was attached.

The bottle, containing three ounces of Squibb's ether, was immersed in water at 150° F. In a few seconds the ether was freely evolved from the vaginal tube; the syringe and attachments had previously been immersed in hot water in order to obviate condensation of ether.

The patient, a negro, aged sixty-five years, was debarred from eating for seven hours before the operation. Shortly before operating the lower bowel was emptied by an enema. A subcutaneous injection of ergotine was also administered to obviate ocular hemorrhage. He was placed on his right side for the administration of the ether.

It was fifteen minutes before the patient was completely anæsthetized, and five ounces of ether were consumed. During the first ten minutes the only effect of the ether (three ounces) was to cause the patient to exclaim frequently, "Oh, my belly! my belly!" (there was slight distention of abdomen) and to expel "wind" almost continuously, and with loud and prolonged noise, from the bowel. Judging that he was thus losing by this *vis à tergo* more ether than he was absorbing, I pressed the nates tightly together (which had previously been neglected) and replenished the ether bottle with two ounces of ether. In five minutes the patient was thoroughly anæsthetized, and the odor of ether could easily be detected in the breath. There was only a very slight and transitory stage of excitement. The administration of ether was continued for thirty minutes. The pulse and respiration during this time were excellent. During the patient's recovery from the effects of the ether he was quite boisterous, singing religious songs. He vomited slightly twice, at short intervals. There was for a short time a slight "pain in the stomach." He had one profuse, slightly diarrhœal stool, no blood. Throughout the whole process there was only slight distention of the abdomen. During the latter part of the administration of the ether the flow of saliva was considerably stimulated.

My second case was on May 18th. It was necessary to make a counter-incision for the purposes of drainage, and the patient urged me to give him ether. The patient, a negro, claims that he was "twenty years old when the British war (1812) broke out." His condition was such as made me hesitate somewhat before inducing anæsthesia. The heart was weak, irregular, and rapid (fatty heart). But this very unpropitious condition made me all the more eager to test the value of rectal etherization. Four ounces of ether were consumed, and eight minutes occupied in inducing complete anæsthesia. The administration of ether was continued five minutes longer. The stage of excitement lasted three minutes and manifested itself by loud singing (religious). In four minutes the flow of saliva was profuse, as in etherization by the ordinary method. Very slight abdominal distention. No diarrhœa. Vomited slightly twice. Complained of "sore belly." Respiration was slightly accelerated. The point of special interest in this case was the action of the heart. As stated above, the pulse symptoms were ugly; but under the influence of the ether the pulse approached a normal basis, it became quite regular, slow, full, and strong, and maintained this condition throughout the period of anæsthesia. It appears that this last case illustrates very emphatically the safety of rectal etherization. Respectfully,

D. K. Shute, A.B., M.D.,
Lately Resident Physician Children's Hospital, D. C

Washington Asylum Hospital, D. C.,
May 19, 1884.

LARGE CALCULI—THE PATIENT OR THE SPECIMEN, WHICH?

To the Editor of The Medical Record.

Sir: Medical journals frequently contain notices of very large calculi removed, and no surgeon's cabinet seems to be complete without more or less large, fine, and rare specimens.

Not long since I witnessed an operation for the removal of a stone, that set me thinking whether possibly some cabinet specimens may not have a history, which, truthfully told, would detract much from their apparent value as curiosities.

The patient in the instance I refer to was a man past middle life, and the case and all its surroundings were not very promising at the best. Whether or not lithotomy was the proper operation under the circumstances need not be discussed.

The ordinary lateral incision was made and nothing worthy of note occurred until the surgeon had reached the bladder and grasped the stone with the forceps. When it was discovered that the stone was an exceedingly large one, the operator appeared to be seized with a frenzy to secure so fine a specimen. He tugged and pulled and pried for a long time, and in a most brutal manner. The mucous membrane and the tissues were shamefully bruised and lacerated in trying to drag a large, rough stone through an insufficient opening. The incision was extended to the utmost bounds of safety. Much was said about the prospective choice specimen, not a word respecting the safety of the patient. Some of the bystanders protested against the reprehensible procedure; others, however, sided with the "calculus fiend."

Finally, the unseemly struggle was abandoned from sheer necessity—the stone was crushed and removed in pieces. Thus a fine specimen was sacrificed. Thus also was sacrificed whatever chance of recovery the man may have had; for, sad to relate, the perverse patient, within a very few days, actually died of pyæmia.

It is to be hoped for the credit of the profession that performances like this are very rare indeed.

Benj. Edson, M.D.

83 St. Mark's Av., Brooklyn.

Chromatic Pharmacy.—Dr. J. C. Neal, of Archer, Fla., writes: "Allow me to suggest to manufacturers of granules, pills, and powders the propriety of coloring their products, rendering it easier to avoid mistakes, and much better for the practitioner in giving directions among the illiterate. For example, color purgatives and laxatives, yellow; astringents, black; stimulants and tonics, red; diuretics and diaphoretics, white; narcotics and sedatives, blue."

Army and Navy News.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, United States Army, from May 25 to May 31, 1884.

WRIGHT, J. P., Major and Surgeon. Directed to perform temporarily, in addition to his other duties, those of Medical Director, Department of Missouri. S. O. 107, par. 2, Headquarters Department of Missouri, May 28, 1884.

MIDDLETON, PASSMORE, Captain and Assistant Surgeon. Granted leave of absence for one month on surgeon's certificate of disability. S. O. 107, par. 2, Headquarters Department of Missouri, May 28, 1884.

HALL, WILLIAM A., Captain and Assistant Surgeon. Assigned to duty at Fort Stockton, Tex. S. O. 63, par. 1, Headquarters Department of Texas, May 19, 1884.

BAILY, JOSEPH C., Major and Surgeon, now on leave of absence, is relieved from duty in Department of Texas, and ordered to report to General commanding Department of the East for assignment to duty at Fort Monroe, Virginia, to relieve Lieutenant-Colonel Charles Page, Surgeon, on July 1, 1884, from duty at that station.

PAGE, CHARLES, Lieutenant-Colonel, on being relieved by Major Baily, will proceed to Fort Leavenworth, Kansas, and report to General commanding Department of Missouri, for assignment to duty as Medical Director of that department. S. O. 125, par. 12, A. G. O., May 29, 1884.

Official List of Changes in the Medical Corps of the U. S. Navy, during the week ending May 31, 1884.

ANDERSON, F., Passed Assistant Surgeon. Ordered to Navy Yard, New York.

BEYER, H. G., Passed Assistant Surgeon. Detached from Coast Survey Steamer Blake, and ordered to Smithsonian Institute for special duty.

RUSH, W. H., Passed Assistant Surgeon. Detached from U. S. S. Despatch and ordered to Coast Survey Steamer Blake.

HENEBERGER, L. G., Passed Assistant Surgeon. Detached from Navy Yard, New York, and ordered to U. S. S. Despatch.

GRIFFITHS, S. H., Passed Assistant Surgeon. Ordered to U. S. S. Lancaster on expiration of leave of absence.

JONES, M. D., Passed Assistant Surgeon. Detached from Naval Hospital, New York, and resignation accepted June 15, 1885.

WISE, J. C., Surgeon. Detached from Academy and ordered to U. S. S. Constellation.

Medical Items.

CONTAGIOUS DISEASES—WEEKLY STATEMENT.—Report of cases and deaths from contagious diseases reported to the Sanitary Bureau, Health Department, for the week ending May 31, 1884:

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Cases.								
May 24, 1884.....	2	5	89	5	123	32	0	0
May 31, 1884.....	3	5	64	4	123	56	0	0
Deaths.								
May 24, 1884.....	4	1	16	4	18	19	0	0
May 31, 1884.....	0	6	14	4	26	23	0	0

NO SMALL-POX IN EASTON, PA.—Dr. Traill Green, of Easton, writes: "In THE MEDICAL RECORD of April 26th, page 474, it is reported that there is 'a present outbreak of small-pox at Easton, Pa.' We have no knowledge of the existence of that disease in Easton, our Board of Health have no report of its presence."

DR. MILLARD'S PAPER.—Dr. H. B. Millard writes: "In my paper published in your issue of May 31st, page 603, twenty-seventh line from the bottom, an oxæmia should read anoxæmia."

THE AMERICAN CLIMATOLOGICAL ASSOCIATION.—The first annual meeting of the American Climatological Association was held in Washington, D. C., on May 3d and 5th. In the absence of Professor Loomis, the President, Dr. F. I. Knight, of Boston, First Vice-President, occupied the chair. The first day was occupied in adopting a suitable constitution and by-laws. The second day was devoted to the reading of papers, as follows: Address by the presiding officer, Dr. Knight; "The Etiology of Pulmonary Phthisis," by Dr. F. B. Westbrook, of Brooklyn; "The Effects of Sea-Air upon Diseases of the Respiratory Organs," by Dr. Boardman Reed, of Atlantic City; "The Relation of Laryngeal Disease to Pulmonary Diseases," by Dr. F. H. Bosworth, of New York; on "Dryness," by Dr. Charles Dennison, of Denver, Col., in which he dwelt on the following points: "Variability *versus* equability; a rule for classifying climates as to dryness and desirability, based upon low, absolute, and relative humidities and preponderance of sunshine; the influence of elevation, sunshine, cold, etc., in producing desirable dryness; the physical effect of dryness on man;" "City Life and City Air Injurious to Consumptives," by Dr. Donaldson, of Baltimore; "The Use of Compressed and Rarefied Air as a Substitute for Change of Climate in the Treatment of Pulmonary Diseases," by Dr. J. Solis Cohen, of Philadelphia. The following officers were elected for the ensuing year: *President*—Prof. A. L. Loomis, New York; *First Vice-President*—Dr. F. I. Knight, Boston; *Second Vice-President*—Dr. W. H. Geddings, Aiken, S. C.; *Secretary and Treasurer*—Dr. J. B. Walker, Philadelphia.

THE EFFECT OF EXTERNAL INFLUENCES UPON THE PRODUCT OF CONCEPTION.—A curious illustration of the influence upon the child of the circumstances under which conception takes place is afforded by some observations made by M. Legrand du Saulle, which we find reported in the *Progrès Médical*. He has seen 92 children who were conceived in Paris at the time of the siege, 64 of whom (nearly seventy per cent.) were deformed in mind or body. He divides these 64 into three groups. In the first, numbering 35, he found children with scrofula, retreating foreheads, strabismus, epilepsy, deafness, stammering, hemiplegia, club-foot, incontinence of urine, and rachitis. The 21 children comprised in the second group presented intellectual peculiarities, such as a want of psychical activity, moroseness, apathy, inability to fix the attention on any one thing, semi-imbecility, and idiocy. The remaining 8 exhibited various moral defects. He found them egotistical, self-willed, vicious, quarrelsome, and prone to strike their companions on slight provocation, and several were obscene in their actions and habits. But a very large proportion of the children conceived at this time were either still-born or died in early infancy. The number of deaths and the frequency of mental and physical deformities in the survivors were so noticeable that the term *enfant du siège* has come to be popularly applied to any sickly and deformed or otherwise unfortunate child.

SOME CONSOLATION FOR SMOKERS.—Tobacco does not deserve all the anathemas that have been hurled against it by the followers of Trask and Decroix, if we are to believe Professor Pécholier, whose views we find quoted in *El Dictamen*. He assures us that tobacco is a powerful microbicide, destroys intestinal worms, cures the itch

and salt rheum. It is a prophylactic against certain contagious diseases, and inveterate smokers enjoy a wonderful immunity from tuberculosis. These and many others are the virtues of this comforting weed, according to the learned professor, and we quote them for the benefit of smokers, who are little accustomed to hear encomiums of their dear vice from scientific lips. Another of our Spanish exchanges, *La Higiene para Todos*, asserts that the Congress of the United States has passed a law similar to that in force in New Jersey, prohibiting the sale of cigarettes to persons under seventeen years of age. It is to be regretted that Congress has not the power to enact such a law, but there is nothing to prevent the other States following the example of New Jersey, and thereby rescuing our boys from a real evil, and at the same time going a long way on the road toward abolishing the cigarette nuisance.

STICK TO THE PHARMACOPŒIA. — Said Sydenham: "The chief defect of physic proceeds not from a scarcity of medicines to answer particular intentions, but from the want of knowing the intentions to be answered."

THE TREATMENT OF EPISTAXIS.—Dr. T. O. Reynolds, of Kingston, N. H., having seen in the New York MEDICAL RECORD several articles detailing as many methods of arresting this frequently troublesome disaster, has been induced to give his experience in a few cases: "Case 1: Mrs. B——, a widow lady, ninety years of age, was attacked with nose bleeding, which continued at intervals, notwithstanding minor attempts to stop it, for a week. It occurred that, at each time when I was called, on arrival the hemorrhage had ceased voluntarily, consequently I only deemed it necessary to leave with the attendants a pet prescription of mine, which had served me a good turn on several like occasions before, *i.e.*, on the reappearance of any signs of hemorrhage, having ready some hot water, apply this immediately to the feet, ankles, hands, and wrists; at the same moment have a second party apply ice or *cold* water on napkins to the throat and cervico-spinal region. This treatment has always produced the desired effect in all moderate cases with me. A message having been sent to Boston, to a son of the patient, containing information that the mother was bleeding from the nose, and the party addressed thinking the case, no doubt, of a serious nature, brought his physician with him, an unexpected event to the family, who consequently could not notify me. When the consultant-to-be arrived, I was out of town. Going to the house and happening to find the patient bleeding, and arguing very naturally that something decided must be done, he very cleverly plugged posteriorly, etc., and left the patient with a very gentlemanly note for me. That evening the hemorrhage came on with vigor and oozed beside the plugs freely. Nothing was to be done but to remove and replug. The removal, in which I was assisted by the son who remained, took a long time. While thus employed I had time to think, and was possibly assisted to my expedient by the protestations of the patient as well as her son, that such a procedure should not be again resorted to. Having cleared out the nasal cavity, I directed the old lady to take a deep inspiration and hold it, when I at once threw up from an ear-syringe a quantity of Monsel's solution ʒ j. to ℥ j. aquæ. Repeating the same for the other side, I left the patient a quantity of the preparation remaining. The son was directed to repeat the operation should occasion demand. We were never troubled again from hemorrhage in this patient. She lived four years afterward and died of pneumonia. Case 2: Lucius W——, attacked very severely during the last stage of convalescence from typhoid fever; he had lost over a pint of blood when I arrived; it being mostly in the night vase, I could see it. I at once had the hot and cold water applied, and the blood which was flowing freely stopped in two or three minutes. During the succeeding ten days this patient was re-attacked several times with indications of violence, the same method controlled the bleeding completely each time. He subsequently went home to Boston, where he resides, and has since been free from epistaxis. Case 3: William G——, adult, twenty-seven years of age, was attacked severely and had become nearly pulseless, and still the flow continued. On arriving, I resorted immediately to the other method above mentioned, and injected the sol. ferri persulph. He had no more trouble till the next day, when I had to repeat the operation. Three days after I again repeated it, and since have had no occasion to use remedies, the patient having fully recovered."

VALERIANATE OF CERIUM IN THE VOMITING OF PREGNANCY is recommended by Dr. Blondeau in a communication to the Société de Therapeutique. He gives it in doses of 10 centigrammes three times a day.

ENLARGEMENT OF THE BURSA PATELLÆ IN CLERGYMEN.—Drs. Wherry and Grosholz have written letters to *The Lancet* showing that what is ordinarily known as "housemaid's knee" is to be met with not infrequently among clergymen and priests.

SUDDEN DEATH AFTER PARTURITION, WITHOUT APPARENT CAUSE.—In view of the recent discussion upon the above subject, the following cases reported to us by Dr. R. Farries, of this city, will prove of much interest. He writes: "In May, four years ago, I was called in consultation to see a Mrs. C——, who had been in labor from about 7 A.M. It was then about 4 P.M. This was her fourth child. She was about thirty-five years old, a medium-sized woman, and appeared to be in a good healthy condition, was not exhausted, and had only moderate pains. After a careful examination nothing was found out of the normal except a hand presentation which was protruding from the vulva. Nothing contra-indicating, I turned and delivered the child, which was very easily done, and the whole operation lasted about ten minutes. No chloroform was used. I left her in a cheerful, happy-looking mood, expressing herself as very comfortable, and stepped into an adjoining room while the attending physician relieved her of the placenta. In about five minutes the doctor called me to go back, as there was something wrong. I just got into the room in time to see her expire. There was no hemorrhage. The uterus was reduced to the usual size and was firmly contracted. On April 28th (last), at 4 A.M., I was called in consultation to see Mrs. H——, a very fat, thick-set woman about thirty-eight years of age, who had been in labor with her *first* child about ten hours. At about 1 A.M. chloroform was administered and occasional efforts had been made to deliver with forceps, but without avail, as they invariably slipped off. At 4 A.M., when I arrived, the patient was well under the influence of chloroform. No progress had been made since midnight. Otherwise she seemed in good condition, except the vulva, which was unusually swollen. The presentation was normal, and the only obstacle in the way was an abnormal elevation of the promontory of the sacrum. We concluded, under the circumstances, the best thing was to turn and deliver. This was done with considerable difficulty. The operation lasted probably half an hour, and although difficult, no desperate efforts had to be made to effect delivery. In a few minutes after the operation, and while the attending physician was delivering the placenta, the patient revived so far as to ask a few questions concerning the event. The placenta arrived in due time and the uterus contracted to about the usual size. The patient was properly cared for and appeared very comfortable. At this stage (about three-quarters of an hour after delivery), in less than three minutes, she sank into a state of collapse and died. There was no unusual hemorrhage and nothing in either case to indicate such a result. What did those women die of, or could anything have been done to avert such an unhappy termination?"

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Original Communications.

EXTENSION OF THE HIP AND ITS PRODUCTION.

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EXTENSION [1] of a joint is the condition produced by traction, exerted between points of attachments to the limb above and below the joint. The two terms are not synonymous, although an effort has lately been made to substitute the latter for the former, but the former is a state and the latter an active agent or force by which this state or condition is produced. A joint is in a state of extension when the tissues about it are stretched by traction and counter-traction, and extension should, therefore, not be considered identical with traction.

The extension may be *incomplete* or *complete*, but these are merely differences of degree. To produce *incomplete* extension the structures are embraced above and below the joint, and the traction force is exerted to separate these attachments. As a result the soft parts about the joint are "put upon the stretch" and are thus forced to exert circumferential pressure upon it. This is easily verified by having an assistant grasp a leg below the knee and pull it away from the thigh, while the operator encircles the thigh with both hands and pushes upward toward the origin of the muscles governing the joint. In such a case it will be seen that the tissues about the joint become rigid, and the joint appears stretched. The circumferential pressure thus produced by traction differs from the pressure of a rubber bandage, in that it does not compress the lax tissues about a joint, but instead forces the tissues themselves to compress the synovial sac.

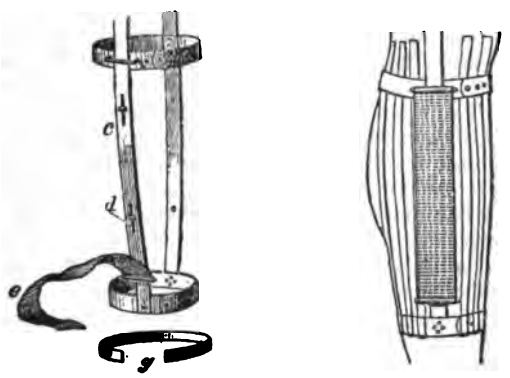
Motion, although hindered by the stretching of the traction, is not entirely prevented, and the angle of the limb may be changed without interfering with the extension; consequently motion is not incompatible with incomplete extension. Fixation of the joint is not produced by this degree of traction, except so far as it may be considered a partial result of the stretching of the tissues, which are thus made to form a splint about the joint. Another and prominent effect of this stretching is to diminish the interarticular pressure and prevent concussion, and if this pressure is unequal and reflex, and the cause of articular pain, the muscles are so stretched by the traction, if it is exerted in the axis of the limb, as not to transmit their contractile effect to the articular surface and the injurious results of spasm are thus prevented. These effects, therefore—first, circumferential pressure; second, tension of all the soft parts about the joint; third, diminution of interarticular pressure, and fourth, prevention of muscular spasm—are the most prominent to be derived from the moderate degree of traction which best tends to produce *rest*, and these constitute the condition of extension (*incomplete*).

Complete extension may be defined as that condition of a joint in which there is separation of the articular surfaces. This is not attained during life by any traction apparatus without injury to the structures involved, for sufficient force would have to be exerted to *first* overcome completely the inherent contractility of the muscles, and this of itself would occasion so much pain to the patient as to be impracticable.

It is a well-known fact, which comes under the observation of all who use traction in joint disease, that while a moderate amount of stretching relieves pain, if it be increased ever so slightly beyond the comfort point the pain becomes intolerable, and long before the muscular contractility gives way entirely, rupture of the attachments or of the muscular substance must take place; *second*, the ligaments would require to be stretched, and *third*, in the hip the atmospheric pressure must be overcome.[1] This of itself has been shown to be sufficient to hold the articular surfaces together after all the muscles and ligaments have been divided and the capsule left entirely free from all appendages.

Bearing in mind, then, that only a moderate amount of extension is compatible with true rest in a joint, and that sufficient traction to draw articular surfaces apart is incompatible with true rest and injurious to the structures, it will be readily understood that incomplete extension is beneficial in such joint diseases as are attended with effusion into the joint, or tissues about the joint, or hypertrophy of the osseous or other tissues, or unequal and spasmodic pressure from the reflex contraction of muscles governing the joint.

The circumferential pressure [2] of the stretched tissues tends to cause absorption of effusion and hyperplastic formation of tissue, and opposes a resilient force to the effusion of new fluid and the deposition of new plastic material, while their rigidity acts as a splint to protect the joint from sudden lateral movements and concussion and opposes the transmission of the effects of spasmodic muscular contractions. Bearing in mind, then, the swelling and reflex pains which accompany "chronic articular ostitis" (Gibney) of the hip, it will be readily seen that extension of the hip in the incomplete degree will tend to prove beneficial if the traction be exerted in the proper directions. The separation of the two points of attachment—one above and one below the joint, for the production of extension in the joint, is effected by means of weight or traction ratchets.



FIGS. 1 AND 2.—Davis' Elastic Ratchet.

Weight is the factor employed in Buck's extension and Hutchinson's physiological method. Traction ratchets enter into the formation of splints of various kinds, and

[1] It is unfortunate that the same word is also used to define a motion and position of a limb, as contrasted with flexion. The confusion might be avoided by spelling the opponent of flexion with d, viz., *extendsion*, and this plan the writer will follow in this paper.

[1] E. H. Bradford: Boston Medical and Surgical Journal, November 11, 1880.

[2] This is greatly assisted by the rubber bandage used in connection with the traction, and a much greater degree of pressure by the bandage can be tolerated without œdema if they are combined, than if the rubber is used alone.

can be divided into two forms, *adjustable* and *elastic*. *Adjustable* ratchets oppose metallic strength to the elastic contractility of the muscles. The simplest of these is composed of slotted strips connected by clamps. Another form is the screw, and still another form the cog and key, which is very largely used.

The elastic ratchets are formed of coiled spiral wire, or of rubber cord or webbing. The latter was first proposed and used advantageously by Dr. H. G. Davis, and was of the form shown in Figs. 1 and 2. This has been modified by Dr. M. J. Roberts, as shown in Fig. 3, and

FIG. 3.—Roberts' Elastic Ratchet.

the writer has still further modified the original form of Dr. Davis, as shown in Fig. 4. The screw clamp shown in the drawing permits the substitution of adjustable for elastic extension, by simply tightening it. Any of these various forms of ratchets are efficacious so long as they keep the points of attachment above and below a joint separated and thus keep the parts well stretched. One advantage which the adjustable possesses over the elastic ratchet is that it is not so liable to allow concussion when

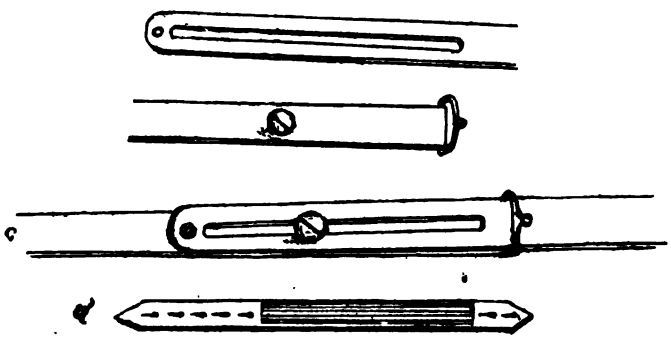


FIG. 4.—Stillman's Modification of Davis' Elastic Ratchet.

a false step is taken. Dr. Davis, recognizing this fault of the elastic, used to employ another strap made of leather as a guard, and this served to overcome the difficulty.

The elastic possesses the advantages over the adjustable ratchet of being simpler, cheaper, and more easily regulated by the patient, and is destined to become very largely used in surgical mechanics for the production of extension. The *direction of the traction* to produce extension of the hip should be considered first in relation to the deformity.

The hip, unlike the knee or other ginglymoid joints, has its governing muscles grouped around it in the shape of a cone, and not parallel with the shaft of the bone. The apex of this cone is the zone of muscular insertions about the head of the femur, while its base corresponds to their pelvic origin. For convenience this muscular cone may be subdivided into an inner and outer. The first is composed of the obturator internus and externus, the gemelli and pyriformis. When the disease is in its incipient stage, so that the patient merely evinces a stiffness of the limb and a tendency to favor it, these muscles, grouped as they are so closely to the head of the bone, are reflexly excited to hold it more firmly without having sufficient strength to produce deformity in flexion, rotation, or abduction. But the second or outer layer of the cone is composed of all the powerful muscles which combine to produce the characteristic deformity, and to create an extension of the joint it will be necessary for us to exert the traction force in more than one direction.

The hip-joint is capable of free movement, owing to its ball-and-socket construction, and its movements are either in flexion or extendsion, abduction or adduction, and inversion or eversion.

In chronic articular ostitis, during the first and second stages the limb is usually flexed and abducted and either inverted or everted. The traction must therefore be directed symmetrically against the cone of muscles in a threefold direction, and the tendency of his force will be to force the limb in the directions of adduction, extendsion, and either inversion or eversion, as the case may be.

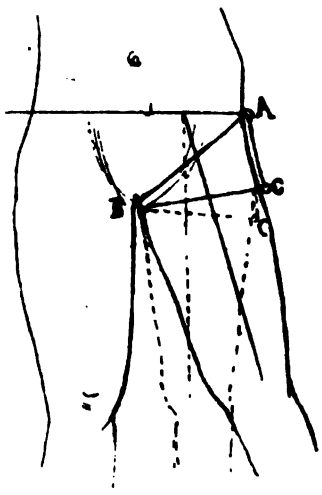


FIG. 5.

Adduction, or the changing of the angle which the vertical axis of the limb makes with the transverse plane of the pelvis from obtuse to a right or acute angle, is produced by traction exerted to separate the points A and C (see Fig. 5). It will be seen that as the distance A C is increased to A C', the limb is thrown inward into its normal angle with the pelvis and thus adducted. But to allow this traction force to be advantageously utilized the point A above the joint must be prevented from moving upward, and the point C from slipping downward.

The former is accomplished by a perineal band A B, which should be inflexible, and the latter is accomplished by means of adhesive plaster, as used in all traction splints for the hip. The original Davis splint, in which traction was first utilized to produce extension of the hip, was formed partially upon this plan, although the point C was more effectually prevented from slipping by increasing the length of the splint to a point below the knee, to afford more surface for the plaster and better attachment of the splint to the limb. The point A has since been still further prevented from slipping upward by the addition of a pelvic band (with a second perineal band upon the other side), which affords better fixation, as in the Sayre short splint, and to prevent impingement upon the soft parts a hinge and screw, or other device for adjusting the adduction, is provided at that point. The perineal band, however, is the important feature, and should be made of firm material which will not stretch upon the application of a strong force.[1]

The point C has since been further aided in its fixation by an increase of length in the splint to an appreciable distance below the foot (as in the Taylor and Sayre long splints), so that the weight of the body in locomotion is transmitted to the ground by it, without vertical pressure upon the joint, the point A being prevented from slipping upward by the perineal band, which is thus forced to receive the entire strain, assisted, so far as displacement is concerned, by the pelvic band.

That the abduction of the limb is thus lessened by force exerted upward against the point A, and downward against the point C, or some inferior point of attachment to the limb, may be easily demonstrated by inspection of the action of any of the forms of traction apparatus which are constructed upon the principles just described. To overcome the *flexion*, the traction must be exerted against that portion of the muscular cone by which it is produced. By reference to the diagram (Fig. 6) it will be seen that in this deformity the thigh is flexed on the pelvis by muscles which have their origin somewhat above the hip, and exert their contraction in the line A C, the joint

[1] In the Davis splint the perineal band was elastic, guarded by an inflexible band, and was therefore not effective in preventing the point A from slipping upward entirely.

being at B.[1] Therefore any traction force which tends to separate the points A and C will tend to decrease the flexion. But unless a pivot was so placed at some part of the traction ratchet as to allow change of angle in the line of flexion such traction force would cause the attachments to impinge upon the soft parts, and not only cause discomfort but would interfere with the effect of the traction in reducing the flexion, *unless the traction was exerted in the vertical axis* of the limb or trunk.

For this reason, if the traction was exerted in the line A C (which is the direction in which it is exerted in the Taylor, Sayre, and Shaffer splints) a freely movable pivot must be supplied either at A or C, preferably at A. These splints,[2] therefore, are obliged to allow constant motion at A if traction is used. The *direction* of the traction force in hip-splints constructed with a flexion pivot at the pelvic band is in the line of the *contraction*, and not the line of the *deformity*, as enunciated so often by many authors upon the subject.

In Fig. 6 the line of deformity is represented by A B and B C, and the extent of the deformity by the angle A B C (the term rectilinear deformity is usually used to describe the condition depicted in Fig. 6), and the line A C represents the axis of the contraction. In these splints the traction is exerted in the line of contraction A C, the two points A and C being pushed apart by it until the deformity A B C is effaced and the distance A C becomes equal to A B and B C combined. Therefore we must conclude that such efficacy as these splints possess is due to the traction force exerted by them to relieve abduction and flexion of the limb, the force being exerted in the line of the contraction, and that the various splints formed on this plan exert their traction in the line of contraction and not in the lines of deformity. Theoretically, therefore, it would seem that flexion is best overcome by traction in this line, but actually the intra-articular pressure and lumbar incurvation are increased by it, as the accompanying diagrams will demonstrate.[3]

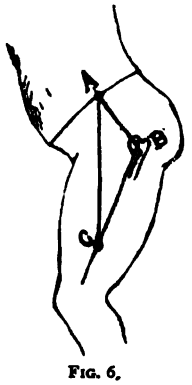


FIG. 6.

This tendency to curvation of the spine can be partially overcome by adding a back piece to the splint, which will extend to the middle of the dorsal region, and is provided with abdominal and chest-bands to resist all attempts at incurvation. This back frame is a feature in the English splints of Thomas and Chance (Noble Smith), and is not found in any of the American splints already enumerated; but these English splints do not attempt to produce extension. To *overcome the intra-articular pressure* dependent upon the flexion the traction in the line of contraction A C is not only useless but really is a cause of its increase. We must, instead of a single ratchet making traction in the line A C, make use of a double ratchet which will take a point over the centre of the articulation as a centre and make traction in each direction from the joint, the traction being exerted in the lines of the deformity. This is best illustrated by taking a strip of lead bent to an angle of 90°, corresponding to the degree of flexion of the thigh, and placing the apex upon the knee, bend it backward in each direction, at the same time drawing the extremities away from the centre (see Fig. 10). The arrow-heads in the diagram represent the direction of the traction. It will thus be seen that the force is exerted very much more conservatively than when in the line of contraction, as in Fig. 11.

FIG. 7.—Contracted Psoas. Diagram representing the thigh flexed from contraction of the psoas muscle. The attachment of the muscle is placed rather lower upon the femur than natural, so as to show better the result (after Noble Smith).

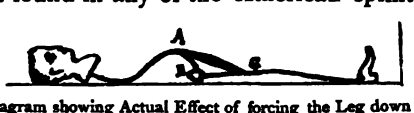


FIG. 8.—Diagram showing Actual Effect of forcing the Leg down by attempted Traction in the Line A C. The spasmodic contraction of the muscle resists the action of the extending force and a compensatory lordosis and interarticular pressure result.

FIG. 9.—Diagram representing the Thigh forced down nearly to the Table by Traction in the Line of Contraction A C, and without the Compensatory Curvation, the Spine being prevented from so doing by an appropriate Back Frame. Intra-articular pressure is, however, not prevented.

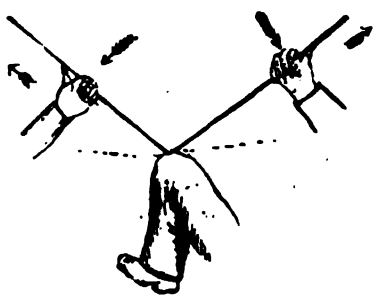


FIG. 10.—Diagram illustrating overcoming Flexion of the Thigh, Traction being made in the Line of Deformity.

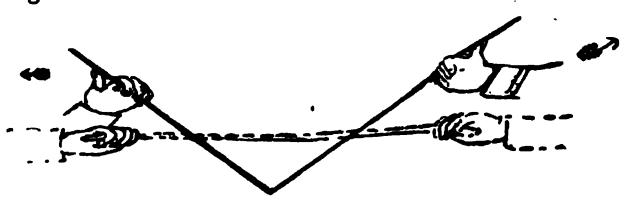


FIG. 11.—Diagram illustrating the Waste of Power in attempting to overcome the Flexion by Traction in the Line of Contraction.

This can be easily verified by anyone making the experiment. If the bracket shown in Fig. 12 be placed over a hip, the terminal plates being secured to the pelvis above and the thigh below by plaster-of-Paris and adhesive plaster, and the clamp connecting the two slotted strips is directly over the joint, traction can be exerted in each direction from the joint, and the tissues between the two terminal plates will be stretched. If at the same time, the clamp being loosened, the thigh is forced backward, the flexion is diminished (provided the attachment to the trunk is carried sufficiently high on the back and low on the pelvis to prevent lumbar cur-

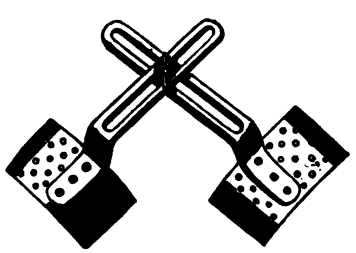


FIG. 12.

[1] The point C should be very close to the hip-joint, but is placed as above for better illustration.

[2] Barwell makes the following criticism upon these splints (Treatise on Diseases of Joints, page 312, Wm. Wood & Co., 1881): "The American splints, long and short, greatly advocated by Dr. Lewis Sayre, have certain inconveniences which, although I believe they have been extensively tried, have prevented their general adoption in this country. The chief objection is that, although we may get the plaster to adhere firmly enough to allow efficient extension, yet the splint does not immobilize the hip."

[3] Dr. H. G. Davis was the first to call attention to this important point.

vation), and then both the traction and the decrease of flexion are secured by the tightening of the clamp, and intra-articular pressure is removed, the action being that shown in Fig. 10.

But if one clamp alone is used, as in Fig. 12, motion cannot take place without releasing the traction. Therefore the slotted sector of a circle [1] is added to the two slotted strips, the centre of the circle being made to connect these strips as shown in Fig. 13.

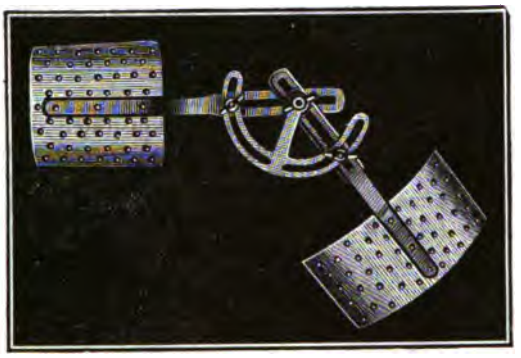


FIG. 13.

Fig. 14 shows this applied to the hip with plaster-of-Paris, but should also show a perineal band, as when the latter is added traction diminishes the abduction at the same time that it acts upon the flexion. The addition of the sec-

FIG. 14.

tor allows either motion or fixation to be combined with the traction and gives the surgeon control of the joint. But for many reasons plaster-of-Paris attachments are not always desired, and a well-fitting brace should be used when possible.

In the brace shown in Fig. 15, and in all other braces for the hip, there are three divisions, corresponding to the trunk, the joint, and the limb. The *trunk* attachment consists of a pelvic band, with two perineal bands and a back support. There is nothing new or original in this part of the brace. The back support has already been described as being a feature of the English braces of Thomas and Chance—a figure of the latter being here inserted for illustration—and the perineal and pelvic bands are such as are used in all the American splints. It will be noticed in the Chance splint that the pelvic band [2] is brought down very close over the hip, a point of importance in hip-braces which was first insisted upon in this country by Dr. Judson, and still more lately by Dr. Roberts.

The *limb* attachment is of several kinds, depending upon the length of splint desired and the kind of traction ratchet employed. It may be short, which extends to the

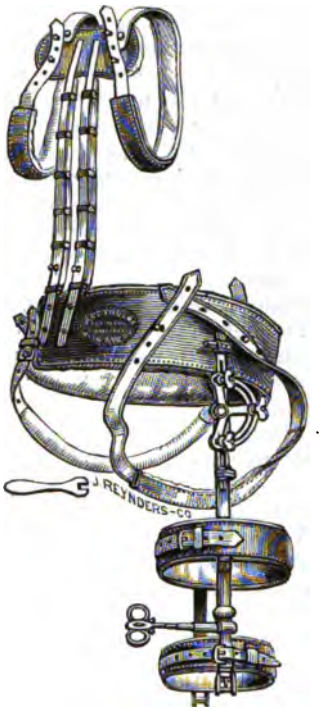


FIG. 15.

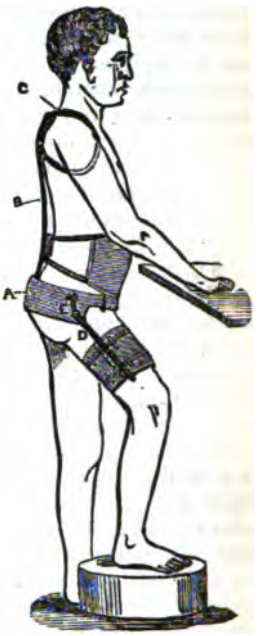


FIG. 16.—Chance's Splint.

knee (Fig. 15), or long, extending below the foot, as in the Taylor, Sayre, and Shaffer braces, or above the ankle, as in the Bauer and other braces. Figs. 15 and 18 are examples of the short attachment to the limb, and in these figures the traction of the sector can be increased by the adjustable cog and key ratchet. This can also be effected by an elastic ratchet.

The *joint* division of the splint is made up of a sector flexion movement (see Fig. 15), with clamps for adduc-

FIG. 17.

FIG. 18.

FIG. 19.

tion and rotation above and below it, and the mechanism shown for this combined purpose, is original with the writer. The sector has been already described and is furnished with an adjustable clamp in the slot to limit motion to any prescribed arc.

A clamp of the form shown in Fig. 17, is placed above

[1] This joint movement was devised by the writer in 1878, and presented to the American Medical Association, an account of it being in the Transactions for 1880, and is the first extension splint for the hip in which the pivotal centre is over the joint and the traction is made in the line of deformity.

[2] The writer now uses a broadfpad (shown in Fig. 22) posteriorly, which presses against the back of the pelvis, opposite the hip-joint, and is attached by a strong slotted strip to admit of adjustment to the pelvic band, or by a bent slotted strip to the centre of the sector. This acts in place of the knee in Fig. 22 in reducing the flexion.

the sector, for abduction and adduction; and for rotation, which is the third direction for the force to be exerted to overcome the triple deformity, the same clamp is placed horizontally below the sector (see Fig. 18). Instead of the former a screw and hinge may be used, and instead of the rotation clamp an endless screw, or a horizontal pivot with a coiled spiral spring may be employed.

In Fig. 18 a short splint is in position on the body. The limb division of the brace is attached by adhesive plaster either in the manner of the Sayre short splint or in the following: Two pieces of moleskin plaster are cut of the shape shown in Fig. 19, and to their centres webbing tags are strongly sewed. The plaster is then to be applied on each side of the thigh, the ends interlacing, as in Fig. 20, and forming a strong net-work of attach-

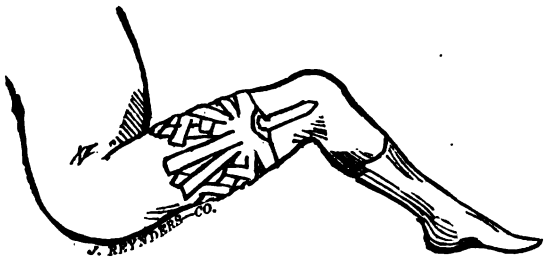


FIG. 20.

ment to the limb. Over this a roller bandage is to be applied in the usual manner, allowing the tags to protrude as in Fig. 21. The brace is then to be placed in position, the clamps of the joint division having been loos-

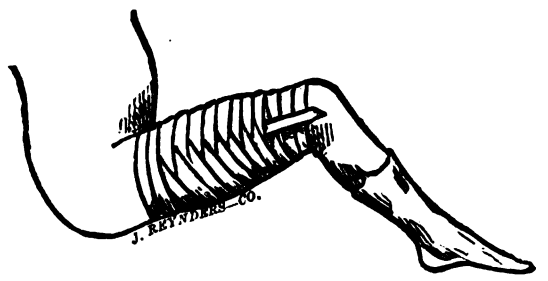


FIG. 21.

ened. The trunk attachment is next to be secured, care being taken to have the pelvic band as low as possible, to have the posterior pad press firmly against the back of the pelvis, and the perineal bands *tightly* drawn. The

FIG. 22.

whole of the limb division is then to be pushed up against the trunk and the webbing tags passed over the rollers and buckled, the girths being likewise fastened. The traction is then effected by the ratchets, and the joint is placed in a state of extension. If fixation is desired, the clamps may be tightened, and in general the joint is placed under control of the surgeon.

Fig. 22 illustrates a form of brace which the writer uses to advantage, and in which the posterior pad is a prominent feature. This affords sufficient leverage behind the joint to overcome flexion and avoid lordosis without the use of the English back-strip.

In this brace the extension is produced by an elastic ratchet, as in Fig. 4, in addition to that produced over the joint by the sector mechanism, and the splint is extended to the ankle. In some cases it is to be extended to the shoe, but this is not often necessary.

FLORENCE HOUSE, NEW YORK.

MANY DRUGS: FEW REMEDIES.[1]

BY GEORGE T. WELCH, M.D.,

KEYPORT, N. J.

DISEASES are the same, but the armament of the physician has increased ten thousand-fold. Hippocrates with a few remedies and a wide and practical observation of the laws of health, wrested medicine from the domain of sorcery, and made it to shine as an art, and himself as a demi-god in the eyes of men; but the modern physician in his multitudinous drugs finds few remedies, and the tragedy of death is played all round him as he stalks behind the scenes. It is the boast of the profession that the death-rate is less and the average of human life is greater, but I might be pardoned the query if we have given due weight to other irresistible influences abroad. Exchange of commodities, increase of wealth, desire of luxury, culture of travel—all these have waved the magic wand over the penury of the past. The barber is better housed than ancient kings; the very charwomen have finery their grandmothers knew not of. The elements no longer beat upon and disintegrate the wandering populations of the world. Every war has been a civilizer. Races have amalgamated, languages have blended, the hordes of the barbarians are the thriving citizens of to-day. Cities shine thick about the earth: the ocean is but a highway. Small wonder is it, then, that famine and pestilence are held at bay; that the fine little chemic teeth of the air and the mists no longer gnaw the vitals of whole multitudes! Did medicine exorcise the demon, or did comfortable warmth and food, new thoughts, wider horizons?

The schools increase, the graduates swarm, the books emerge through printer's ink like bubbles on Avernus, but how many great physicians can you name, and which are the diseases borne under by the annual spring-flood of doctors! And yet where is the young doctor who does not believe in the magic of drugs, and the old doctor, if he be a wise man, who does not look upon the most of them as mischievous, and the minority as deserving of restriction? The pathologist is skeptical of them all.

With laborious zeal we study diseases. The magnificent eye of the microscope dilates above the smallest speck and gives it a local habitation and a name; we anatomize and compare, and the professor awes with learned length while he discourses of the ills he cannot cure. Cripps tells us the death-rate from cancer has shown a pretty steady relative increase in England during the whole period of which we have any accurate returns, averaging about 1 in 56 of all the deaths that occur; and comparing the death-rate with the number of persons living, there is an annual average of 1 death from cancer in every 2,860. Comparison with the statistics of deaths from the reports of the Board of Health of New Jersey, during 1879 to 1883, inclusive, shows

[1] Read before the New Jersey Medical Society at its meeting at Cape May, June 10th and 11th, 1884.

an average death-rate from cancer of 1 in about 51 of all the deaths that occur, and annually, taking the census of 1880, of 1 in every 2,675 living. Are we any nearer to the cure of malarial diseases? Although it might justly be urged that what is frequently called malaria is not malaria at all, and that where the ignorant or the indolent doctor of old, mildly puzzled by a disease relegated the cause to the liver and prescribed a mercurial, his son or his grandson, more glibly fashionable, ascribes all to malaria, prescribes quinine, and goes his way. Yet I am speaking of the veritable miasms; those that rise from unhallowed places, and, tangled in the veins, debauch the system and lower its *morale*. And do we, waiting behind the eye of Koch, know anything of tuberculosis, or believe that he does? Does not the ravage go on? And who has won eminence in curing yellow fever? Are men no longer in dread of the cholera? And the exanthemata—does not the grewsome pendulum of disease sweep into and out of every neighborhood, about once in five years? Who cures rheumatism, or typhoid fever, or chronic Bright's disease? And where is the stout heart that never failed before a patient burning and broiling in the horrible slow flame of pyæmia? And yet who refrains from prescribing? The witches move one way about the cauldron, and we go the other; they throw in the drugs that brew the poison, and we throw in the counter-poisons. Stillé and Maisch's Dispensatory has a list of one hundred and fifty remedies for rheumatism, a disease which is as likely to become chronic with treatment as without it. Everybody has a specific, from your grandaunt with teas, fomentations, and flannel, to the last German doctor with his forty grains of salicylic acid to the dose. The extremes of treatment are one-and-thirty days, and relapses as frequently occur with the acid as without it, and the heart frequently becomes affected when the system is saturated with the drug. No specific this, surely.

And then, as to typhoid fever, rarely exists a physician nowadays who does not feel called upon to reduce the temperature, though why, it would be hard for him to tell. Struggles the system against the fever with the ferocious strength of a man at bay in battle; oscillates every little cell with the glowing heat; by every avenue nature seeks to expel the invader. Suddenly an appalling dose of quinine paralyzes the fever and the patient as well. Almost gleefully the physician reads the figures on his clinical thermometer: the temperature has fallen four degrees! but the patient does not rally. He lies dazed in a stupor for hours, when the blood begins its ebullitions, the frenzy is renewed, the fever has asserted itself once more. Again is quinine heroically given, "as if disease lay in its phenomena and not in the organic condition out of which they spring." It is the same old officious zeal that must be doing something, not remembering Milton's famous line,

["They also serve who only stand and wait."

The trouble is, medical thought runs too much toward specifics. It is the fashion of the time to achieve sudden honors, sudden wealth, easy learning, and why not rapid restorations to health? The journals teem with fortunate prescriptions, the nostrums of manufacturing chemists push braggart charlatanism to the wall. Our Pharmacopœia has but barely escaped from the jumbled theriacs of old times when these monstrosities appear. Montaigne and some of his friends, all suffering from calculous disease, while comforted with each other's miseries, made merry over a new pill of a hundred ingredients, lately devised to cure their complaint. The antidote of Mithridates contained fifty-four ingredients, and the theriac of Andromachus sixty. Warburg's tincture has about twenty, and on the outskirts of every medical journal are flaunted the nostrums for the cure of this, or that, or twenty diseases; and, most painful to relate, there is always appended the name of some professor in a medical college to laud the mixture. But the medical colleges are all over the land like mushrooms, and the professors are thicker than blackberries. There may be knowledge enough to go round, but there are few heads strong enough to take it undiluted. Books of prescriptions are issued from the press. Medicine is taught in twelve easy lessons. The average doctor has but to guess at the disease when the ready-made prescription is at his hand, or the thought-relieving elixir fills the momentary need. Even while he feels the patient's pulse or asks his preliminary questions, his mind is abstractedly saying, "Now what shall I give this man?" His faith is in his fetish, and never in himself. He must make a show of doing something or his rival will outvie him in public esteem.

Not that such as he control medical thought or shape its destiny, but they do tincture its present most woefully. Between the noblest who stand awestruck on the threshold of their art and science, seeing the throng of life majestical in its energy, reliant and undismayed, from the nowhere to the infinite pushing without repose, down to the lowest camp-follower in medicine who drives a sutler's trade, there is such a height and depth that the average is without compliment to any. The first recognize the divinity in man, the spark glimmering through the mystery of life; know of the long march and the myriads of years yet to be trodden under, of the foes without and the hereditary diseases within, and with cautious skill endeavor to relieve, assist and guard the confiding one. But the latter looks to the spoils and the esteem of the hour, and frequently brings the ill into a worse chancery than that legal court which mumbles a man's real estate till the last acre crumbles from his title-deed.

And yet from of old it has been so long the honored custom to dose each luckless patient, that we have trained them and ourselves to expect it, and even the wisest physician feels somewhat criminal if he withholds his hand. The fact is, we, for all our boasted learning, stand too much in awe of precedent, and are too little cognizant of the natural history of disease. But when, as in cholera, a thousand drugs have been given without avail, while in some other disease recovery has been the rule under medicines diverse and incompatible, philosophy may well hold both her sides, and marvel that we preserve our grave demeanors. If homœopathy has done any good, it has been in enforcing the doctrine of the tendency of most diseases to remedy themselves. It was a long step in advance when Dr. Pauvini, of Naples, in 1834, to make undisputed trial of homœopathic medicines, in the Hospital della Place, set apart ten patients who were not allowed to take any treatment at all, while ten others with similar diseases were subjected to the frivolities of this sect. All recovered.

If more ancient proof of the tendency of natural recovery were wanted, we should not lack in the wonderful cases which have come down to us, by drugs which present enlightenment has shown to have no remedial virtues whatever. For generations the Chinese have imported ginseng for its weight in specie, believing it to be an infallible specific for a hundred ills, while we know it has not the virtue of common water. And yet some marvellous cures must have taken place while under treatment with this drug, or its reputation would have long since tarnished.

What sad commentary does the reading of old therapeutics furnish upon much of credulous modern treatment. The decadence of once popular remedies must lead us to suspect the disappearance of many which are now highly esteemed. The extravagant and almost universal application of some drugs, as quinine, for instance, must eventually bring about a curtailment of their uses; but what will contribute more than anything else is the proper understanding of their physiological effects.

If I were to characterize the present tendency of medical minds, it would be the almost universal belief that the great majority of diseases are caused by the loss of tonicity, and must be treated by tonics and stimulants. As if the overwrought mind or body must be speedily thrust back to its tension and kept to the delirious strain

and tendency of the age. To this end a large body of pioneers, most attracted by lucre, a few by fame, are everywhere experimenting, or pretending to experiment, and seeking to demonstrate the miraculous utility of new drugs or recent compounds in the cure of the most diverse and lingering diseases; scarcely a chemist at his lurid flames, disintegrating or combining, discovers a rare crystal or a potent liquor, into which all things at some expansion will dissolve, but he begins to experiment with it on plants and animals, with a view, while it is yet crudely known, of heralding it as a specific for a score of human ills. If they threw physic to the dogs only, we might commiserate the unfortunate brutes; but when we think of the human, everywhere, down whose unsuspecting throats the vandal dose must go, we may well shrink aghast at the unrecorded mischief that is done.

We hear of the so-called cures, where we might shrewdly suspect nature would have remedied herself if let alone, but rarely do we hear of the failures. Where one physician is honest enough to publish the latter, a thousand will say nothing about it. It is positively painful to read the ill-digested reports of practitioners which sometimes reach us. The most unconquerable diseases are found to have been cured by the most unreasonable medicines. The most unscientific writer has had no difficulty in subduing phthisis, diphtheria, albuminuria, or typhus fever with drugs that you and I have found no virtue in. Where you and I have failed, he has always cured about fifty cases. His easy-going optimism is scarcely content with less. But what are the means? As to the drugs, most of them are poisons. Solutions of the majority poured about the roots of plants destroy their vitality, and given to animals full often the horrid corroding torture begins that death cannot too speedily end. Given to men, corresponding effects are usually produced, if carried to extreme. But forecasting the results in man from those produced in the lower animals is frequently an argument both fallacious and dangerous. The chemical action of the digestion in brutes would seem to be gross compared to that of man. Not seldom the toxic properties of plants are expelled undetected through the kidneys of the former, which would be speedily fatal to the finer human organization. As, for instance, birds and herbivorous animals eat the fruit of the belladonna without injury, the latter excreting the active principle with the urine. Two or three grains of atropia may be injected hypodermically in pigeons and dogs without causing more than a few hours' indisposition. Birds will tolerate the presence of morphia in the stomach to an almost incredible degree. A dog, says Stillé, has recovered from a dose of six grains of acetate of morphia.

While, on the other hand, where men find no evil result in certain drugs, brutes will rapidly succumb to unexpected toxic effects. Thus, citric and tartaric acids, camphor, cocculus, and dulcamara are fatal to most of the lower animals usually experimented on, destroying them with pain and violence. Thomas injected milk into human veins, and saved his patients from death by hemorrhage. Howe performed the same experiments on dogs, and all the animals died. And oil of thyme, acetate of ammonia, and potassii iodidum act fatally on the lower animals, while they are fairly medicinal to men.

Besides the illustrations given there are many other drugs which act so diversely on different animals that no judgment as to even their probable action on man can in any way be gained. Falk and Guenste administered berberina hypodermically to rabbits without observing any uniform effect, and tried with many animals such drugs as colocynth, cyclamen, eucalyptus, hyoscyamus, and strychnia, and some others, which presented the most curious antagonisms, some slaying outright, some sickening grievously, and leaving others entirely unharmed.

Added to the cloudy comprehension of these might be adduced the uncertainty of the action of drugs which have been habitually prescribed for centuries. Calomel, so long used with superabundant faith as a cholagogue, though occasionally disputed, is at last believed to have no such effect, but to actually diminish the secretion of bile. Who does not remember when sarsaparilla was thought so potent, though now so unregarded. And it has been no long time since antimony was restricted, when before it had been of universal application.

Even to be liberal in a large sense, if certain drugs like opium, quinine, iodine, phosphorus, iron, ether, strychnia, and aconite were rescued, the whole nauseous bulk of the rest might be in the flat seas sunk, and the death-rate rise no higher. Medicine has achieved her most glorious renown in the prevention, not in the cure of disease; and in that domain lies her imperishable reward.

In dealing with the fortunes of a spirit so subtle and elusive as life, we should accept nothing as proven that has not stood the inquisitorial tests of time and innumerable applications. Lands and governments remain for the future craft of men; but life, that fades from before us today, no to-morrow shall reillumine. Our art deals at once with all that is vital in the stupendous mysteries that surround us. Moulded of all the elements; hot, glowing from the forge, the wonder and the paragon of nature—is the exquisite sense at fault, the body languishing? Would we remedy it, we must be quick about it. And to be of seemly haste we must be convinced of the qualities and applicability of the medicines we are about to use. But how shall we be convinced? Certainly not through druggists' circulars, nor through the unfreighted enthusiasm of a few professors; but if a carefully tabulated return of diseases treated and remedies used could be annually made from every physician to a responsible board of supervisors, who, in their turn, should sift and digest with rigorous criticism the mass of evidence before them, and report back again to the profession at large, progressive knowledge could be maintained and the past made secure. As it is, we have no system; each works upon his own plan; our therapeutics is cloudy and foggy. The power that comes from thorough organization is squandered in individual groping.

There is no reason why medicine should not work toward a great end by machinery similar to a political government, provided you can make each physician responsible to all, and exact his best endeavors. But this we have tried for years in New Jersey, and having left it to the honor of medical men, their indolence has made the end impracticable. There is one other way—the establishment of a college of experimental medicine, as recommended by Milton, with a system of registration for correcting errors of observation.

The Black Plague derived its name from the dark and livid color of the spots and boils that broke out upon the patient's body. It descended along the Caucasus to the shores of the Mediterranean, spread over the South, and only entered Russia after the rest of Europe was affected. It followed the caravans which came from China across Central Asia until it reached the shores of the Black Sea; thence it was conveyed to Constantinople by ships, because this was then the commercial centre between Asia, Europe, and Africa. In the year 1347 it reached Sicily, Italy, and Marseilles. The next year it spread to France, Germany, and England. It did not reach Russia till 1351, or four years after it was at Constantinople. Thus, like the cholera, it followed a regular route, which differed according to the lines of trade and commerce at the different periods. The populace attributed the plague to water poisoned by the Jews, and persecuted them infamously: 1,200 Jews were burnt in Mayence; London lost 100,000 in one month; Avignon and Florence, each 60,000; Marseilles, 56,000; Paris and Norwich, each 50,000; Strasburg and Erfurth, each 16,000; Basle, 14,000; and Venice, 10,000 in one month.

Hospital Reports.

PRESBYTERIAN HOSPITAL, NEW YORK.

SERVICE OF JOHN H. HINTON, M.D.

(Reported by ALPHEUS FREEMAN, M.D., late House-Surgeon to Presbyterian Hospital, New York.)

PISTOL-SHOT WOUND OF STOMACH—RECOVERY.

THE following case occurred in Dr. John H. Hinton's service at the Presbyterian Hospital during the month of February, 1884, and is peculiarly interesting for the favorable progress and satisfactory termination following an injury of such apparent gravity. It occurred as follows: The patient, a male, aged twenty-one years, and in good health, was shot in the back a few minutes after eating his breakfast. He experienced a sensation as if struck with some large heavy body, but walked immediately to a place half a block distant, and from there was conveyed in an ambulance to the hospital. When admitted, at 9.30 A.M., he presented no symptoms of shock, but was in very good general condition. Examination showed that the pistol had been presented sufficiently near to blacken his overcoat, and that the ball had entered over the left tenth rib behind, five inches to the left of the spine, while on the anterior abdominal wall a small hard body was felt beneath the skin three inches above the umbilicus, and two inches to the left of the linea alba.

The patient complained of no pain whatever, but expressing a great desire for sleep, ♏x. of Magendie's solution were administered hypodermically, which quieted him for about half an hour, when he suddenly vomited about a pint of dark fluid and clotted blood with food intermixed. He vomited four times after this, about three ounces of dark fluid blood at each attack, but showed no symptoms of collapse, and nothing occurred to indicate that hemorrhage was taking place into the peritoneal cavity. Cracked ice was given by the mouth, and a hypodermic injection of gr. x. of ergotine in solution.

In the afternoon, an incision being made over the bullet, it was removed, and found to be a conical 32-calibre ball in good shape. Flaxseed poultices were then applied to both wounds. The day after the injury found the patient still feeling comfortable. No nourishment was allowed by the mouth, and he was fed entirely by enemata of milk every four hours. During the afternoon he vomited once, about a teacupful of dark fluid blood.

The evening temperature was 101° F., and the pulse being full, strong, and 120 to the minute, gtt. ij. of the tincture of aconite were given every two hours. The next morning there was another attack of bloody vomiting, followed shortly by a large, tarry, fecal passage. In the evening, the pulse having fallen to 107, and being less forcible, the aconite was discontinued. During the next four days there were no signs of peritonitis, and no important changes occurred. Eggs and beef-juice had been added to the enemata, but on the fifth day he complained so much of hunger that milk in small quantities by the mouth was allowed and well borne. The temperature, which had never gone above 103.5° F., fell to normal on the ninth day and remained so. By this time the patient had become somewhat anæmic and emaciated, and the allowance of food was gradually increased and the enemata stopped. Both wounds had begun discharging pus, and the poultices were changed for absorbent dressings. His general condition steadily improved after this, and on the twentieth day he was able to sit up and eat the regular house diet. By the thirty-fifth day the wounds had cicatrized and he was up and about, feeling perfectly well.

During the first two weeks of his illness, although not suffering from pain, he was unable to sleep at night without morphine, and the nightly amount required was ♏xxx. of Magendie. There was no difficulty, however, in diminishing the dose, and when he became able to sit up through the day the restlessness at night disappeared. Having lost twenty pounds in weight during his sickness, he gained one pound daily for ten days on returning to a regular diet. No dyspeptic symptoms occurred, and he left the hospital feeling as well as ever and apparently cured. In this case it seems fair to suppose that the ball passed through both walls of the stomach, and probably above the food level. The wounds being small may have contracted rapidly, and one may have become closed by a flap being torn from the inner wall of the stomach acting as a valve, and preventing food and blood from escaping into the peritoneal cavity.

It was shown that this may occur by the following experiment on the cadaver.

After pumping the stomach about one-half full of water, the subject was shot in the back. Examination then showed that the ball had entered about in the same situation as in the above case, passed through both walls of the stomach and lodged in the anterior abdominal muscles. The wound in the posterior wall was guarded by a valve-flap of mucous membrane, which completely prevented fluid escaping, and the other wound was almost closed, but had no protecting flap. No other viscus besides the stomach was injured.

Progress of Medical Science.

THE MODE OF ACTION OF THE BROMIDES IN EPILEPSY.—In a number of experiments upon dogs poisoned with bromide of potassium, Dr. Rosenbach found that the irritability of the cortex to electrical stimulation was diminished or entirely destroyed, while that of the subjacent white substance remained unchanged. From this the author concluded that the therapeutical value of potassium bromide in epilepsy was owing to its power of lessening the irritability of the cortical substance of the brain.—*Norsk Magazin for Loegevidenskaben*, April 15, 1884.

CHLORAL IN CHOREA.—Dr. Mosler relates a case of very severe general chorea in a girl eighteen years old, in which a speedy cure was obtained by chloral. After morphine and arsenic had been given for two weeks without effect, chloral was exhibited in thirty-grain doses, at first four times, then twice, and finally once a day. On the very first day the patient slept soundly, and at the end of a week the choreic movements had ceased entirely. It is worthy of note that the onset of the chorea was preceded by a toothache, a circumstance which has been remarked by other observers.—*Norsk Magazin for Loegevidenskaben*, April 15, 1884.

MECHANICAL TREATMENT OF HÆMATEMESIS.—The difficulty of controlling hemorrhage from the stomach or œsophagus by any of the ordinary means led Dr. Schilling to employ an apparatus by which direct compression might be made against the inner walls of the organ. It consists of a flexible stomach tube with a rubber bladder at one end and a stop-cock at the other. The bladder is introduced and very slowly and carefully inflated until it is made large enough to excite contractions in the stomach. In this way the hemorrhage is controlled. The air should be let out again very slowly, so that the clots may not be loosened. If the bladder have been oiled previous to its introduction, the danger of adhesion to it of the coagula will be lessened. If this procedure fail to arrest the hemorrhage, we may then conclude that its source is in the œsophagus (usually it is at the lower portion of the tube), and recourse must then be had to the œsophageal tampon. The author relates one case of repeatedly recurring hæmatemesis, which was permanently arrested by the use of this bladder for twelve minutes. The inflation should be moderate, as the object is to excite contraction of the gastric walls and not to distend the organ.—*Centralblatt für Chirurgie*, May 3, 1884.

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New York, June 14, 1884.

TRACHEOTOMY IN DIPHTHERITIC CROUP.

AT a series of meetings recently held by one of the sections of the Academy of Medicine to discuss the treatment of diphtheritic croup, the large numbers in attendance and the close attention paid to the speakers showed the great interest taken by the profession in this subject. One noticeable feature in the discussion was the very general skepticism as to the utility of solvent inhalations in the destruction of the false membrane. There was exception taken to this sentiment, however, by a distinguished gentleman present, who thought that by a faithful use of the spray, about one in eight cases might be saved. There is apparently some uncertainty attending this mode of treatment. The pseudo-membrane is composed of several different elements which may yield relatively to different solvents; but as we do not know in any individual case which of the component parts of the membrane preponderate, we cannot be sure that the best inhalation is in use. This is possibly an explanation of the fact that good results have been claimed for such widely differing solvents in different cases. It is also uncertain how much of the inhalation actually reaches the larynx in a young child. The atomizers in common use do not throw a very strong spray, and few children can be kept near enough to receive the full benefit of what is thrown out. Most physicians agree that a moist atmosphere, in which fresh air is not excluded, is desirable in the treatment of croup. In one of the papers, the internal administration of corrosive sublimate in frequently repeated doses, was recommended as promising great results. These good results, however, have not as yet been fulfilled, and probably all will agree, that despite the best medicinal treatment most cases of diphtheritic croup will die if no operation is performed. The important question for the physician is, whether the operation itself affords enough chances of success to warrant its frequent performance. The oldest statistics are rather disheartening; but in the past two or three years much better results have followed the performance of tracheotomy. It is of some interest to inquire the cause of this improvement in results. Is it due largely to fortuitous circumstances, or has a more intelligent application of our art not been a factor in its production? Many observers consider that the type of diphtheria has changed somewhat in the past few years. There is less manifestation of septic blood-poisoning that produces heart-failure, nephritis, and so many fatal results after the obstructive laryngitis has been relieved by tracheotomy. It is not unreasonable to suppose, moreover, that the treatment may have assisted in altering the type of the disease. The free use of alcohol, by preserving the action of the heart, and the large doses of tinct. ferri chlorid., which maintain the integrity of the red blood-corpuscles and assist the engorged kidneys, have certainly been factors in changing the mortality of diphtheria. It is also only fair to suppose that the better results of tracheotomy are partly due to our learning more about the operation and the after-treatment. Certainly the brilliant results recently attained in ovariotomy are not due to any change in the nature of ovarian tumors, but to a scrupulous attention to every finest detail in the operation and its after-treatment on the part of the surgeon. We do not mean to affirm that tracheotomy is performed more skilfully now than formerly; but by not delaying the operation until the child is moribund, and by paying more attention to the after-treatment, the mortality has been lessened. In fact, if the operation is to be performed, the sooner it is done the better the prognosis.

Morell Mackenzie stated, in a lecture delivered on diphtheria in this city, that when the dyspnœa was sufficient to cause much recession at the epigastrium the operation should not be delayed. If this rule were promptly followed we think it would result in a saving of life. Granting that occasionally a case might have recovered without a tracheotomy, we know the vast majority die if not operated on; and the operation had better in rare instances be performed without absolute necessity, than that in the great majority of cases its dangers be increased by too long delay. There is room here, as always, for intelligent individualizing. While no absolute rule can be laid down, and unnecessary operating is always to be deprecated, we think that in tracheotomy of all operations delay is dangerous. After the operation a physician or trained nurse should be in constant attendance. This is one of the most important features of a case. Many children have died who could have been saved by a little intelligent handling at this time. The tube must be kept absolutely free from mucus and shreds of membrane, by frequent cleansing in a disinfecting fluid. In many cases this is not done with sufficient thoroughness. We have seen cases in which both ends of the tube were clean, but at the bend the calibre was largely occluded by thickened mucus. The attendant must have sufficient intelligence to recognize any such cause of embarrassed breathing and quickly relieve it. At the same time the supporting constitutional treatment of diphtheria must be continued. Within the past few years physicians in this city have saved one-fourth, one-third, and even one-half of their cases after tracheotomy. Even if the child do not recover, death is often rendered easier. There is no greater triumph of art than to see tranquil breathing take the place of agonizing dyspnœa as the result of an operation. Very early age, while not favorable to tracheotomy, does not preclude its performance, as an infant in this city recovered at the age of eleven months. In concluding we would urge physicians to be ready to operate themselves. A careful practical study of each of the steps of the operation upon the cadaver, and a steady hand, should enable one,

in case of necessity, to perform a tracheotomy. Invaluable time is often wasted in searching for a surgeon. A few hours, or even minutes, may make the difference between life and death. We predict a brilliant future for this operation.

M. PASTEUR'S HYDROPHOBIA VACCINE.

It seems to be the fortune of M. Pasteur every now and then to put himself in such a bad light that serious people ask if there is not, after all, something of the charlatan about him.

We recall the peculiar way in which he announced his discovery of the chicken-cholera microbe and its vaccine, the exaggerated and untenable claims which he made for his anthrax vaccine, and the persistency with which he clings to obsolete and unsafe methods of bacteria-culture.

M. Pasteur's last performance is in keeping with some of the others. Several weeks ago, he furnished to a sensational paper the announcement that he had discovered a vaccine against hydrophobia. The exaggerated language in which his discovery was described might have been largely due to the expansive imagination of the reporter. Nevertheless, such a possibility should have been foreseen and guarded against. Though promising great things to the newspaper public, M. Pasteur, it seems, dares not yet actually put his "vaccine" to a practical test.

A cablegram from Paris says: "Numberless persons have applied to M. Pasteur, and expressed their willingness to be inoculated with the modified virus which causes rabies. All such applications the scientist has refused to avail himself of until he shall have completed his experiments upon dumb animals. The final test with animals will shortly be made before a Government commission."

M. Pasteur's method of obtaining the rabies virus has already been referred to in these columns. He finds that by inoculating monkeys with the virus from a mad dog that the intensity of the poison is gradually diminished. After passing the virus through a sufficient number of monkeys he inoculates rabbits. In passing it through rabbits, the strength is gradually increased again. When the proper intensity is reached, the animal to be protected is inoculated.

The test referred to in the above cablegram is likely to shock the sensibilities of every one, but it may, and we trust it will, be entirely justified by the results. Twenty healthy dogs are to be inoculated with the protective virus, twenty more control-animals are to be kept unvaccinated. The whole forty are then to be bitten by mad dogs.

THE CONSERVATIVE VIEW OF CREMATION.

We do not mean to assert by any means that cremation is a humbug, or that it is not a mortuary rite entitled to respect. Cremation is a legitimate and decent method of disposing of the deceased. Those persons who wish that after death their bodies should be put upon a crematory gridiron and slipped into a fiery furnace, ought to have opportunities for the gratification of such a harmless eccentricity, the proper medico-legal cautions being taken. We have before expressed the opinion that, the novelty of cremation having passed away, it has ceased to encounter very much opposition or to receive very great encouragement. The English Parliament has, to be sure, rejected the cremation bill, but an English judge has affirmed its legality, and the Paris municipal council has voted to cremate the anatomical débris of the city's dissecting-rooms. But though cremation has been revived now for many years, the number of bodies burned is still counted only in hundreds.

The fact is that cremation is not a necessity, as is claimed, except possibly in certain localities. The alleged dangers of inhumation do not exist if the solid coffins are not used and the bodies are deposited in proper soils.

Much has been said and written concerning the purifying loveliness of fire and the mouldy putrefaction of the earth. Such arguments relate entirely to the individual feelings, and are not practically of much value. Most people really prefer to take the chances (*post mortem*) with the worms, to produce ptomaines, adipocere, and other interesting chemical bodies, rather than be suddenly blown up through a tall chimney in the form of CO_2, the inorganic remainder being returned home by express. Yes, flame purifies; and, therefore, man is in the habit of casting all his rubbish into it. But most persons object to classifying summarily their beloved dead as rubbish, to be disposed of by bonfire, as is the custom in the country.

Let those have cremation who want it, let it be introduced into cities which absolutely need it, if such exist. But there is no need that sanitary Jeremiahs should go about informing the people that inhumation is disgusting and that cremation is a hygienic and æsthetic necessity. This is truly humbug.

THE ILLINOIS MEDICAL PRACTICE ACT.

Recent decisions in two cases—one under the Act to Regulate the Practice of Medicine in Illinois, the other under the Dental Surgery Act—sustains the right of the State Board of Health to determine the status both of a college and of a practitioner. Under the latter act the Supreme Court refused the petition of Isaac N. Sheppard for a writ of mandamus to compel the State Board of Dental Examiners to issue him a certificate or license based upon a diploma of the Indiana Dental College. The Board refused the license on the ground that the college was not a "reputable" institution. It was argued that the law constitutes the Board judges of the standing of a college, and that there is no power of review vested in any other body. "If the Board should arbitrarily or unreasonably abuse their discretion, and refuse a license without any reason therefor, there is a remedy for such abuse of a discretionary power." But there was no ground for claiming that this was the case in the present instance. The Board, in its judgment, had decided that the curriculum of study and requirements for graduation of the Indiana Dental College were not such as to entitle it to be classed as a "reputable dental college," and there is no power in the law given to any person or body to review and set aside, or confirm, the exercise of the discretion by the Board. The petition for a mandamus was denied.

In the case of the State Board of Health against C. Buel Rice, of Cincinnati, a graduate of the Medical College of Fort Wayne, tried in the Saugamon County Court, the defence set up the plea that, being a graduate of a "legally chartered medical institution in good standing," the defendant was entitled to the certificate of the Board; and that it was not competent for the Board to inquire into the moral or professional character of such graduates. On the part of the prosecution it was shown that charges had been presented to the Board alleging that Rice was in the employ of, and associated with, the "K. & K. Surgeons," a firm of advertising quacks from Cincinnati and elsewhere, and that in various ways connected therewith his conduct was unprofessional and dishonorable within the meaning and intent of the Medical Practice Act. Upon these charges the Board had refused to issue Rice a certificate until he had disproved the same. Instead of making any attempt at such disproof, Rice continued to practise; whereupon he was arrested for practising without the necessary certificate. The facts were admitted by the defence; but, as already stated, the court was asked to dismiss the suit on the ground that it was obligatory on the Board to issue its certificate to the possessor of a genuine diploma of any "legally chartered medical institution in good standing," regardless of the moral or professional status of the individual. This the court declined to do, but found the defendant guilty, and assessed a penalty of $50 fine and costs.

STATE SOCIETY MEETINGS.

DURING the past week there has been more than the usual number of meetings of State medical societies, and in them the ordinary amount of interest has been manifested in scientific matters, local and general. As a whole, however, these organizations do not rise to their privileges of instruction to members or influence with communities as they should.

There are many difficulties to contend with in view of such desirable ends, which all reasonable lookers-on are willing to admit. Their plans of work are necessarily defective, their membership is not sufficiently representative, and the character of the papers read are not such as tend to bring out the best lines of practical thought.

At the bottom of the difficulty appears to be the dearth of papers, especially such as are calculated to interest general practitioners. The consequence is that the time is occupied in other ways, mostly by specialists, who almost invariably put the hay too high for the little horses. The few papers which are presented are generally devoid of interest, occupy the full time of the sessions, and narrow the exciting and interesting events to the election of officers, to the taking of an excursion or two, and the attendance upon a supper.

The annual addresses are delivered as a penalty to the greatness of the office which makes them necessary, are usually sadly weary efforts in the direction of patching up threadbare subjects, and have the only redeeming feature that they are slightly "more blessed to give than to receive." We are now speaking on general principles, and place ourselves above individual references. But why cannot these inflictions be dispensed with altogether, and the time occupied in their delivery be devoted to strictly scientific work? Or can we not get at matters pertaining to the prevention of disease, the value of sanitary reforms, the utility of vaccination, the necessity of advancing medicine, of checking quackery, and like subjects talked about *ad nauseam*, in some more practical way? This may be a question not easily answered, but in the interest of audiences yet to be, we ask it notwithstanding. Is it not possible to make the election of a president of a State society conditional with a promise by the candidate that he will eschew all such subjects in his address? This would certainly open the way to a little variety in topics which might prove refreshing and entertaining. In any event, we have certainly come to the point where new departures are in order.

In this connection we are glad to notice that in some instances the presidents have recognized a becoming fitness in things and have branched forth in new directions. It cannot, of course, be expected that in a session of a day or two very many papers can be read, but such as are read can be on practical subjects. There should be some arrangements made beforehand by the president to secure the proper material and encourage the every-day workers to come to the front and discuss every-day diseases. Let the papers be short and their subjects published beforehand, so that the members interested may be prepared for the discussions.

By all means let the collective study of disease be encouraged, and in no better way can it be done than by the distributed membership of a systematically organized State society. The material is always at hand for such work in every State society in the land. We want to know more of the commoner diseases, for we speak now in the interest of the country practitioner generally, who forms the backbone of every State society, and who attends the meetings that he may bring home with him something that will aid him in diagnosticating more surely and in treating more efficiently typhoid, puerperal, malarial, and scarlet fevers, pneumonia, rheumatism, Bright's kidney, and the like. Just in proportion as all these things are done will the meetings be more prosperous, more profitable, more instructive, and more representative.

A QUESTION FOR OUR MEDICAL CENSORS.

THE medical press of England occasionally comes out with some stringent criticisms upon the practice of advertising medical books in the daily papers. The general sentiment of the profession there is emphatically opposed to these public announcements of technical medical works with their authors' names and titles. A similar feeling prevails among the physicians in this country and has very generally been respected. We observe, however, that of late several medical works have been advertised in the city papers and on the sidewalks along with the other publications of the firms. Authors who allow this enlarge the circle of their readers, but they also weaken their own standing among their medical brethren. A good medical work cannot be made intelligible to general readers, andthe very fact that attempts are made to secure such an audience stamps the work at once as of questionable authority and value.

News of the Week.

American Neurological Association.—The tenth annual meeting will be held at the New York Academy of Medicine, June 18th, 19th, and 20th; afternoon and evening sessions.

Illinois Board of Health.—Governor Hamilton, of Illinois, has appointed Dr. George N. Kreider, of Springfield, a member of the State Board of Health, vice Dr. A. W. H. Reen, of Peoria, resigned.

Dr. William Pepper has been elected to the Chair of Theory and Practice of Medicine, in Jefferson Medical College, in place of Dr. Alfred Stillé, resigned. Dr. Pepper's father held the same position.

Failure of the Drug Combination.—As we at first predicted, the leading wholesale druggists who agreed some time ago that they would not sell drugs, medicines, or proprietary medicines to the retail dealers in this city and Brooklyn that cut rates, have cancelled their agreement, and they sell now to all customers as before the combination.

Physicians' Mutual Aid Association.—Increased membership of the Physicians' Mutual Aid Association has enabled the trustees to increase the payment at death to $475, and it is confidently expected that the sum will soon be increased to $500.

The New Chair of Pathology at Cambridge University.—Dr. Charles Smart Roy has been elected to the new Chair of Pathology in the above-named university.

The International Congress of Hygiene meets this year at the Hague, August 21st. Dr. Van Overbeek de Meijer, Professor of Hygiene at Utrecht, is Secretary. The Dutch Minister of the Interior is honorary President. Drs. Koch and Pasteur will be present and read papers.

A New and More Certain Method of Attenuating Virus has been discovered by M. Chauveau, and is described partly in the *Lyon Médical*. It consists in the use of compressed air acting upon the organisms in the culture-fluids.

Professor Weber-Liel, of Berlin, well known as an otologist, has accepted a call to Jena, where he has charge of a clinic. Professor Liel writes us that Jena, like other of the smaller German universities, has excellent advantages for the study of the specialties. Living and tuition are cheap. A short course is given by the Professors and docents in the summer months.

Dr. Thomas C. Chalmers, one of the oldest physicians of this city, died at his residence, on June 4th, after a short illness. He was born at West Galway, Saratoga County, this State, June 18, 1810, and was graduated with high rank from Union College. He came to New York in 1834, and for many years was connected with the New York Hospital. For more than forty years he practised his profession with marked success, and was held in the highest esteem for his skill and devotion to his patients. He was a member of the New York County Medical Society, and was one of the original founders of the Academy of Medicine of this city.

The Army Medical Records.—The U. S. Senate has passed a bill providing for the erection of a fire-proof building in Washington for the records of the army medical department.

The Faith Cure in Court.—The Rev. Clement T. Blanchet is an Episcopal minister who cannot be accused of not practising what he preaches. He is a firm believer in the faith cure, and tested it upon his six-year-old daughter until the Society for the Prevention of Cruelty to Children interfered in the child's behalf. The child in question broke one or both bones of her fore-arm. The parents both agreed to try the faith cure, and suitable prayers were offered. The child's arm did tolerably well, it being only a green-stick fracture. The neighbors interfered, however, the Assistant Bishop sent a letter of protest, and the Society for the Prevention of Cruelty to Children had the father summoned before a justice. A doctor was called, and the arm set. The faith cure has thus failed to encroach on the domain of surgery.

State Medical Society Meetings.—The following State Medical Societies met during the past week: The Delaware State Medical Society; the Indiana State Medical Society; the Ohio State Medical Society; the New Jersey State Medical Society; the Maine State Medical Association; the Massachusetts State Medical Society; the Rhode Island State Medical Society; the Michigan State Medical Society.

Reports of Societies.

MASSACHUSETTS MEDICAL SOCIETY.

One Hundred and Third Anniversary, held in Boston, Mass., June 10 and 11, 1884.

(By Telegraph to The Medical Record.)

TUESDAY, JUNE 10TH—FIRST DAY.

In the morning the members of the Society availed themselves of the invitations of the officers of the various institutions to visit the Massachusetts General, City, Children's, and Lying-in Hospitals. At noon they met at the new Harvard Medical School building to listen to a communication by Dr. H. P. Bowditch on

METHODS OF INSTRUCTION AND RESEARCH IN PHYSIOLOGY, WITH DEMONSTRATIONS.

The members of the Society were shown over the laboratories and lecture-room of the physiological department, explanatory diagrams being drawn on the blackboard, and the members of the Society were given an opportunity to examine for themselves the methods here employed in giving instructions in physiology, and to inspect the appliances used for original investigation. The blood-pressure in the dog, and the effect of irritation of the vagus nerve; methods of studying the vaso-motor nerves of the cat and frog by pletaysmograph; effect of temperature on rate of heart-beat of frog; the force of ciliary action; the action of the semilunar valves, as shown by those of the ox so arranged in a current of water that their movements could be observed; some optical illusions of motion (subjective complementary motion), as shown by a revolving spiral figure; and the pendulum myograph for determining the reaction time of muscle were shown.

Dr. Ernst explained the methods and apparatus for the cultivation and study of the tubercle bacillus, showing specimens obtained by culture up to the fourth generation.

The members then adjourned to the anatomical lecture-room, when DR. DWIGHT presented a communication on

MODERN METHODS IN ANATOMY, WITH DEMONSTRATIONS.

Dr. Dwight spoke of the intimate relation of the Professor of Anatomy to the museum, which is the monument that the anatomist raises to science, and which perpetuates his own name, being indeed a criterion of the anatomical merit of the institution which owns it. He mentioned the work of the great anatomists of this and the past generation as seen in the great museums of Europe. Turning to the museums of Harvard University we find the great Agassiz collection; the beautiful collection of comparative anatomy by Harvard's great anatomist, the lamented Jeffries Wyman, which is now diffused through a larger collection; and the Warren Museum at the Medical School, founded by John C. Warren, Professor of Surgery and Anatomy, and devoted to both morbid and normal anatomy.

Anatomy should not be spoken of as a science without a future. It is true that man is still made of the same bones, ligaments, muscles, etc., as of old, and that they have been, on the whole, fairly described; but without speaking of the acknowledged great advances in minute anatomy, what great progress has been made in embryology, which with comparative anatomy throws much light, and will throw more on many peculiarities of structure, and which theorists would have the foundation of anatomical teaching. Anatomy has to do also with the movements as well as the relations of the various organs, and the subject-matter of the anatomist's knowledge should be the breathing, moving man. Dr. Dwight spoke of the great advance in the methods of presenting the different subjects in anatomy—the advance in topographical anatomy marking an era in the science. The reader called attention to certain grave errors only lately pointed out; as, for instance, the shape and position of the stomach, whose lesser curvature has only within a few years been recognized as practically vertical. His has recently shown, by means of livers hardened *in situ*, that the description of that organ given in Gray and most text-books is wrong, and only in the last edition of Quain is it corrected. The relation of the mouth, pharynx, and œsophagus, as picturnd by Bougerey and others, is shown by Braune to be incorrect. The position of the ovaries is, even to-day, a matter of doubt.

The reader spoke of the great value of frozen sections in connection with other methods of study, showing specimens of the head, thorax, abdomen, and various joints. A series of recently prepared corrosion preparations was exhibited, a part of them being in colored wax and resin, according to Rudinger, prepared by Dr. Dwight; and others, of vessels and cavities, such as the air cavities of the head, in fusible metal, prepared by Dr. Mixter, assistant in anatomy. The wax preparations have the advantage of giving two or more systems together of different colors, while with the fusible metal can be made finer injections, and at the same time they are less easily affected by the heat. A large number of thin sections of bone were also shown as demonstrating its internal structure.

At three o'clock the Society met in Huntington Hall, to listen to a paper by DR. G. W. GAY, on

THE PLASTER POSTERIOR SPLINT IN THE TREATMENT OF FRACTURES OF THE LEG, WITH ITS PRACTICAL APPLICATION.

Dr. Gay described the method of applying the splint, which is as follows: The leg is first surrounded with cotton batting, and a layer of crinoline is then placed beneath it, wrapped about the leg, and cut so as to envelop the whole leg from the toes to above the knee, with the exception of about an inch on the anterior surface. This piece serves as a pattern by which six or eight layers are cut. Plaster mixed with warm water is rubbed into each layer, and the whole applied to the limb and secured with a roller bandage. When dried, the outer bandage is removed and the tray is complete. The advantages of this splint are, that it holds the fragments firmly in position, it does not interfere with circulation, seldom requires readjusting, allows the patient to move and be moved, allows easy examination, and is very comfortable. It is also easily removed and reapplied.

It is especially adapted to cases of simple fracture of the leg not attended with extensive injuries to the soft parts and not requiring great force to retain the fragments in a proper position. It may also be used in certain cases of compound fracture, in which the wounds can be exposed through apertures in the splint. It is of especial value in children, as, when once properly applied, it requires very little readjusting.

This splint has been in almost constant use at the Boston City Hospital for several years and has given great satisfaction. Not infrequently cases of fracture are put into this bandage within twenty-four hours of the accident, and are not interfered with for six weeks or until recovery is complete. Cases of Pott's fracture give more trouble than almost any other form, and require a longer period of confinement. A patient weighing one hundred and fifty pounds should not, in Dr. Gray's opinion, be allowed to bear his weight on a Pott's fracture for three months, and the heavier the patient the longer should be the confinement.

At four o'clock an adjourned meeting of the Society was held. After a long and animated discussion the Society voted to amend the by-laws so as

TO ADMIT WOMEN TO THE SOCIETY.

This action to become effective must be concurred in by the Councillors, and a committee was appointed to present the wishes of the Society to that body in the evening.

EVENING RECEPTION.

At 5 P.M. a reception and collation were tendered to the members of the Society by the Medical Faculty of Harvard University at the new Medical College, and the new building was exhibited. In the evening the annual meeting of Councillors was held at the Medical Library, and the question of the admission of women was discussed and acted upon. The action of the Society in the afternoon session was sustained, and in the future women will be admitted on the same terms as men. This ends the struggle that has been going on for several years.

WEDNESDAY, JUNE 11TH—SECOND DAY.

The meeting was called to order by the President at 9 A.M., when the Secretary's report was presented, followed by that of the Treasurer. The presentation of medical papers being next in order, DR. F. NICKERSON, of Lowell, related a case of chylous deposit in the abdomen.

The patient, a man forty-five years of age, in good health, was suddenly attacked with pain and swelling of the abdomen. On examination a tumor was discovered, which, on aspiration, yielded two quarts of milky fluid. During the next two years the patient had repeated attacks of pain and swelling, sometimes accompanied by vomiting of milky fluid, and once by a discharge from the rectum of the same character. During this time the tumor was aspirated several times, always giving the same kind of fluid, the quantity, however, each time becoming less. Specimens of this were examined by Drs. Edes and Wood, of the Harvard Medical School, the result being as follows: reaction, alkaline; specific gravity, 1,018; is fat emulsion.

THE PITCH OF THE PERCUSSION SOUND

was the title of a paper by DR. L. HUNTRESS, of Lowell.

The reader claimed that sufficient stress had not been laid on pitch of percussion-note, though some writers

mention it. It is probably of greater value than intensity, though not as great as quality. He had carefully examined over two hundred healthy persons, and found that there was slight or well-marked difference in pitch on two sides of the chest in more than two-thirds of the cases. The pitch of tympanitic percussion-sound depends on the volume of air and the tension of the walls. Flint spoke of it as higher than normal, while Loomis holds that it is lower. This is probably due to different degrees of tension of the walls of the cavity.

Dr. Bowditch spoke of the importance of recognizing the fact that there may be variations in pitch in different parts of the same healthy chest.

Dr. Garland spoke of changes of pitch in the organ-pipes as depending on the length of the air-column until the length of the column becomes equal to, or less than its width, when the rule ceases to apply. This probably explains the difference in pitch of the tympanitic note.

Dr. J. F. Adams read a paper entitled

SANITARY FOREST-CULTURE.

It had been only recently recognized that the presence of forests has a marked effect on the flow of streams, moderation of climate, and prevention of malaria. Forests act as reservoirs and distributors of moisture by allowing more water from rain- and snow-falls to soak into the ground, thus preventing freshets, and extremes of high and low water. In Europe it is noticed that the variations in the rise and fall of rivers are much greater than formerly. Forests also serve to break the force of winds and distribute moisture. It had been repeatedly shown in this country and Europe that cutting away forests had, in many places, increased the prevalence of malaria, while many malarial districts are rendered habitable by planting rapidly growing trees. The reader recommended that the State take measures to awaken a knowledge of the importance of the subject in public minds, pass laws to protect existing forests, and establish a school of forestry on the plan of those in Europe. Many waste lands in the country could be made to yield a good interest if properly planted.

Dr. H. O. Marcy spoke of the importance of steps being taken for the preservation of the Middlesex fields. An excellent opportunity was there offered for the systematic cultivation of forest trees.

Dr. A. H. Blodgett spoke of the manner in which forestry is taught and applied in Germany, where in certain districts, forming water-sheds to important streams, no trees can be cut without permission from the government forester.

On motion of Dr. Millett the Society passed an unanimous vote referring the subject to a committee, with instructions to present it to the Legislature, and urge the passage of suitable laws on the subject.

WEIGHT AS AN INDICATION OF THE CHARACTER OF RISKS FOR LIFE INSURANCE,

was the title of a paper presented by Dr. J. Seaverns, of Roxbury. Some very interesting points were brought out in reference to the condition of weight and its bearing upon health and hereditary predisposition. Being under the usual standard weight was always a matter of more concern than a slight over-weight. Extremes in either direction were hazardous as to life risks, as each was known to have its diseases, and excited a direct influence upon life expectation.

The reader presented a careful analysis of a large number of cases of deaths found in the records of an insurance company, with especial reference to the limit of safety risks on those whose weight was above or below generally accepted life insurance tables of normal standard weight. He concluded that twenty per cent. is too great a margin for those whose weight falls below the standard, while it may be increased for those who are heavier, providing, of course, that examination shows no defect. He would put the limits of safety at fifteen per cent. below and twenty-five per cent. above. Outside these limits all persons should be rejected.

The President, Dr. John Crowell, of Haverhill, delivered the

ANNUAL ADDRESS.

He spoke of the duties of the physician as a teacher of the public, especially in sanitary matters, calling attention to the prevalence of bad drainage and ventilation in even our best houses, and especially in summer resorts and old farm-houses in the country. There has been great improvement in this respect since the formation of boards of health in 1877, but much remains to be done. In the matter of food there is opportunity for great advances. Much is to be learned from economical and healthy dishes, French and Scandinavian. We do not do as well as we should with the materials at hand.

In the conduct of the sick-room much improvement is needed, especially in the country. The attitude of the public to contagious disease and its prevention, especially in cases of diphtheria and small-pox, is not wholly as it should be. The speaker closed with an eloquent appeal to the profession to educate the public so that they may be freed from quacks and vendors of nostrums and specifics, and that the rising generation of the poor may be better fitted for their struggle with vice and ignorance.

At the close the Society unanimously voted its thanks for the able and eloquent address.

THE ANNUAL DINNER.

After the delivery of the President's address, and the introduction of Dr. Homans, President-elect, the delegates and invited guests repaired to the Skating Rink in Clarendon Street, where a dinner was served for seven hundred physicians.

The hall was handsomely decorated with banners and long tables tastefully spread. The Germania band furnished music for the occasion. Nearly seven hundred Fellows of the Society were present.

Dr. George B. Shattuck, of Boston, Anniversary Chairman, presided with a quiet dignity befitting the occasion, and happily and gracefully introduced the speakers of the day. Upon the platform were his Excellency, Governor Robinson, Dr. Mackie, of New Bedford, Surgeon-General Holt, Rev. Frederick Courtney, Samuel Eliot, Dr. George C. Shattuck, Dr. J. O. Green, of Lowell; Dr. Jarvis, Dr. Henry L. Bowditch, Mr. H. O. Houghton; the President-elect of the Society, Dr. Charles D. Homans; the retiring President, Dr. Alfred Hosmer, of Watertown; the Orator, Dr. John Crowell, of Haverhill; ex-Mayor Dr. F. A. Green, Dr. Ira Russell, of Winchendon, Dr. H. P. Wolcott, of the State Board of Health, and Dr. George F. Shrady, of New York.

In calling the assembly to order after dinner, Dr. Shattuck welcomed the members and guests to the Eighty-third Annual Dinner. The Society has fairly begun on its second century of work, and there is reason to hope that it may prosper even more than during the first. He then introduced Dr. Homans, the new President.

Dr. Homans responded briefly. He stated that in 1789 there were but sixty-eight members of the Society against one thousand five hundred and twenty in 1884. This was certainly a wonderfully gratifying increase. There had been ninety-four new members added during the present year. Dr. Homans alluded to the action of the Society in admitting women, and remarked that perhaps twenty or thirty years hence the present scene might be a ball-room.

Dr. Alfred Hosmer, of Watertown, retiring President of the Society, spoke of the value of the new Code of Ethics lately established, and of the simple duty which every Fellow of the Society owes to the profession, to the Society, and to himself. No one could become a physician deserving the name unless he first was a man.

Governor Robinson on being introduced spoke of the intimate relation of the State to public health and

State medicine so called. Everyone can contribute to our knowledge of this subject, which is of the most vital importance. He referred to the present system of expert witnesses, and suggested that if paid by the State it would be a better system. He spoke of the appointment of medical examiners that he must make in a few days, and expressed his desire to appoint the men best fitted. The Governor then congratulated the Society on its action of the day before in admitting women, and wished that the next century should be as useful as the last.

After listening to remarks by Rev. Fred. Courtney, Mr. Justice Field, Dr. John Crowell, Dr. Samuel Eliot, and Professor W. T. Sedgwick, of the Massachusetts Institute of Technology, the meeting adjourned.

MICHIGAN MEDICAL SOCIETY.

The Nineteenth Annual Meeting held at Grand Rapids, Mich., June 10th and 11th.

(By Telegraph to THE MEDICAL RECORD.)

TUESDAY, JUNE 10TH—FIRST DAY.

THE meeting was called to order by the President, DR. WHELAN, and prayer was offered by REV. B. F. SARGEANT.

An address of welcome was delivered by Mayor BELKNAP, after which the roll was called by Secretary RANNEY, about one hundred and fifty members being present.

The Executive Committee reported the programme, and announced a reception for the evening by Dr. and Mrs. Charles Shepard; freedom of the Peninsular Club rooms, and an invitation by the Grand Rapids & Indiana Railroad Co. for a free excursion to Traverse City.

The reports of the Secretary and Treasurer were then read. The balance in the treasury was $1,050.

DR. DONALD MCLEAN gave histories of several

EXSECTIONS OF ELBOW- AND SHOULDER-JOINTS,

also a case of wiring together ununited fracture of humerus, and other clinical cases. Several patients were also exhibited, showing result of operations. The paper was discussed by DRS. SHIRLY, WALKER, MCGRAW, and TOPPEN.

A well-digested, carefully written essay by DR. SAMUEL P. DUFFIELD was then read on

EXPERT TESTIMONY.

DR. PRATT followed with some remarks on the subject.

DR. LUNDY then read an instructive paper, entitled

THE DRY TREATMENT OF CHRONIC INFLAMMATION OF THE MIDDLE EAR.

PRESIDENT WHELAN then read his address on

DEVELOPMENTS OF MEDICAL HISTORY, SCIENCE, AND ART,

closing with a short and appropriate notice of the death of Drs. J. H. Jerome and Wm. Brownell.

DR. C. GEORGE read a lengthy paper giving the history of the use of

TURPENTINE IN DIPHTHERIA,

and his personal experience with it in that disease.

DR. H. C. WALKER read a valuable paper on

EXPLORATION OF THE MALE URETHRA,

exhibiting instruments to facilitate exploration.

DR. T. A. MCGRAW presented a paper on

DIAGNOSIS OF TUMORS.

By illustrative cases he pointed out the difficulty in separating malignant from non-malignant growths.

DR. PALMER read a paper on

PROSTATIC HYPERTROPHY

and its treatment without the use of the catheter.

About sixty new members joined the Society.

WEDNESDAY, JUNE 11TH—SECOND DAY.

The following papers were read: "Report of Perinephritic Abscess," by Dr. G. K. Johnson; "Placenta Previa," by Dr. E. P. Christian; "Traction of Perineum for the Relief of Disease incident to Hypertrophy of Prostate," by Hal. C. Wyman; "Report of Several Cases of Gynecological Practice," by Chas. Shepard; "Sterility in Women," by J. H. Carstens; "Aural Catarrh," by J. Kirkland; "Deafness from Parotitis," by Leartus Connor; "Country Doctors," by E. B. Ward; "Administration of Chloroform," by T. J. Sullivan; "Study of Sixteen Cases of Tracheotomy," by Dr. Jennings; "Nasal Catarrh," by A. W. Nichols; "Puerperal Condition," by Hugh McCall.

KENTUCKY STATE MEDICAL SOCIETY.

Twenty-ninth Annual Meeting, held at Bowling Green, June 3, 4, and 5, 1884.

(Special Report for THE MEDICAL RECORD.)

TUESDAY, JUNE 3D—FIRST DAY.

THE Society was called to order at two o'clock P.M., by the President, Dr. J. N. McCormack, of Bowling Green, who introduced Dr. T. J. Townsend, the Chairman of the Committee of Arrangements. Dr. Townsend in behalf of the profession, and the Hon. C. U. McElroy in behalf of the people, welcomed the Society to the city. The President then delivered the annual address.

DR. A. MORGAN VANCE, of Louisville, read a paper upon "Local Anæsthesia by the Ether Spray," and demonstrated the method as applied in his hands. He claimed that the best application of this method is not to carry the spray to the point of freezing the tissues, but to operate at the moment of application, following with the knife the spray as it touches and obtunds the surface. He detailed a number of operations in which this plan had been observed, and in every instance the patient escaped pain and shock. The instances cited were tenotomy, extirpation of fibrous tumor of foot, and enucleation of eyeball. He deemed it of the utmost importance that the spray be applied by an assistant so directed by the operator that the line of incision be instantly consequent upon the touch of the spray.

DR. J. P. THOMAS, of Pembroke, made the annual report on "Materia Medica and Therapeutics," which was for the most part devoted to a consideration of paraldehyde as a hypnotic. In the discussion which followed, DR. STONE, of the Western Lunatic Asylum, gave the results of his observations upon the comparative merits of various hypnotics in treating the sleeplessness of the insane. After commending the use of choral hydrate and the bromides in various conditions, he claimed that opium is superior to all other agents for this species of insomnia. He recommends its use in small doses frequently repeated.

DR. R. MAUPIN FERGUSON, of Louisville, read a paper on "Glaucoma." After detailing the most advanced views as to the nature of this affection, he gave an interesting account of the methods of treatment as recently observed by him in London, Paris, Berlin, and Vienna.

At an evening session of the Society, DR. J. W. HOLLAND, of Louisville, read a paper upon the "Cause of Consumption," giving a detailed account of modern pathological investigation into the origin and nature of tubercle. The paper was discussed by the Society.

WEDNESDAY, JUNE 4TH—SECOND DAY.

After the transaction of miscellaneous business, DR. L. S. MCMURTRY, of Danville, made the annual report upon the "Progress of Surgery." This paper was devoted

to a study of the comparative safety and value of the anæsthetics used in surgical practice, and to recent improvements in abdominal surgery. The speaker gave in *résumé* the results of experimental investigation into the comparative safety of the several anæsthetic agents in common use, and described the method and results of etherization by the rectum, as recently practised in France and America. He believed this method exceptional in applicability and dangerous, yet deserving full and fair trial. Taking up the subject of wounds of the intestines, he advocated their treatment by the application of the advanced principles of abdominal surgery. To avoid fecal extravasation and peritonitis, to control hemorrhage and prevent septicæmia, the abdomen should be opened, the wound of the intestine closed with sutures, and the peritoneum thoroughly cleansed. The greater portion of the report was devoted to the diagnosis of abdominal tumors, the speaker giving illustrative cases from practice.

This paper was discussed by Dr. D. W. Yandell, Dr. A. Morgan Vance, and others.

Dr. Stone, of the Western Lunatic Asylum, made a written report in this connection of a case in which pregnancy was mistaken for an ovarian tumor.

Dr. J. M. Harwood, of Shelbyville, read a report on "Epidemics."

Dr. Pinckney Thompson, of Henderson, opened a discussion on the "Treatment of Typhoid Fever," with a paper, which elicited remarks from Drs. Wm. Bailey, J. A. Larrabee, and D. W. Yandell, of Louisville, and others.

Dr. W. M. Fuqua, of Hopkinsville, read a paper entitled "Civilization and Sanitation," and Dr. A. W. Johnson, of Danville, one on "Bigelow's Operation."

Dr. Dudley S. Reynolds, of Louisville, made a clinical report upon "Iritis; its Etiology, Pathology, and Treatment." He discussed the subject with special reference to the early recognition and treatment of the disease on the part of general practitioners, and the prompt application of essential remedies.

Dr. Wm. Cheatham reported a series of cases of cataract, with remarks upon the operation.

Dr. T. D. Finck, of Louisville, read a paper on "Phlyctenular Conjunctivitis," which was discussed by Dr. Reynolds and others.

Thursday, June 5th—Third Day.

Dr. J. W. Holland, of Louisville, read a paper on "Diphtheritic Paralysis."

Dr. J. M. Mathews, of Louisville, made some remarks upon hemorrhoids, with special reference to operation during the inflammatory state. He reported a series of cases from his own practice, in which the operation for radical cure was performed while in a state of active inflammation, with most satisfactory results. At the suggestion of the President he discussed the comparative value of the ligature and injections of carbolic acid and other agents in the treatment of hemorrhoids, and gave preference to the ligature.

Dr. J. A. Larrabee, of Louisville, read a paper on "Tetanus in Childhood."

Dr. A. Morgan Vance, of Louisville, reported a case of deformed hand restored by excision and skin-grafting. The report was illustrated by photographs.

Dr. W. M. Fuqua, of Hopkinsville, offered the following, which was adopted:

Resolved, That the President of the Kentucky State Medical Society appoint seven representative medical men, members of this Society, of recognized ability, experience, and judgment, whose duty it shall be to report to this Society at its next meeting whatever legislation is requisite for the purpose of promoting a better medical education, the prevention of quackery, and fostering the growth of sanitary science, and any other measures by which the public good may be subserved at our hands; and it is further

Resolved, That whatever measures shall be proposed by this committee shall be submitted to this Society at its next meeting for discussion, revision, or stricture, and if, upon a majority vote, this proposed enactment be passed, then it shall become the duty of this committee, together with the President of this Society, to present a suitable bill to the Legislature of Kentucky and urge its enactment.

The President appointed upon this committee Drs. W. M. Fuqua, J. H. Letcher, A. D. Price, D. W. Stone, Dudley S. Reynolds, J. P. Thomas, and J. O. Taylor.

The President then appointed the following standing committees: *Practice of Medicine*—Dr. William Bailey; *General Surgery*—Dr. J. M. Mathews; *Orthopedic Surgery*—Dr. A. M. Vance; *Abdominal Surgery*—J. H. Letcher; *Surgery of the Genito-urinary Organs*—Dr. A. W. Johnston; *Gynecology*—Dr. L. S. McMurtry; *Obstetrics*—Dr. Andrew Sargeant; *Ophthalmology*—Dr. D. S. Reynolds; *Otology*—Dr. William Cheatham; *State Medicine*—Dr. J. W. Holland; *Vital Statistics*—Dr. J. W. Harwood; *Materia Medica*—Dr. T. J. Townsend; *Pharmacy*—Dr. J. P. Thomas; *Susceptibility of Idiots to Eruptive Diseases*—Dr. J. G. A. Stewart; *Diseases of Children*—Dr. J. A. Larabee; *Necrology*—Dr. L. B. Todd.

Drs. W. M. Fuqua, J. F. McElroy, and T. D. Fink, of Louisville, were appointed delegates to the International Medical Congress of Copenhagen.

Dr. L. S. McMurtry, of Danville, Chairman of the Committee on the Prize Essay Fund, made a report, stating that the condition of the treasury was not equal at the close of the last annual meeting to the constitutional provisions for offering a prize, and hence no advertisement had been made by the committee. He then moved that the Society subscribe through the Secretary, and in the name of the Society, the sum of one hundred dollars to the Sims Memorial Fund. This motion was unanimously adopted.

The following officers were elected: *President*—Dr. Pinckney Thompson, of Henderson; *Senior Vice-President*—Dr. O. D. Todd, of Eminence; *Junior Vice-President*—Dr. L. S. McMurtry, of Danville; *Secretary*—Dr. S. M. Letcher, of Richmond; *Assistant Secretary*—Dr. F. Dunlap, of Danville; *Treasurer*—Dr. Edward Alcorn, of Hustonville; *Board of Censors*—Dr. Dudley S. Reynolds, of Louisville, chairman; Dr. James H. Letcher, of Henderson, secretary; Dr. A. Sargeant, of Hopkinsville; Dr. R. F. Floyd, of Lebanon; Dr. J. M. Harwood, of Shelbyville; Dr. R. C. McCord, of Lebanon.

The Society adjourned to hold the next annual session at Crab Orchard Springs.

MAINE MEDICAL ASSOCIATION.

The Thirty-second Annual Meeting held at Portland, Me., June 10 and 11, 1884.

(By Telegraph to The Medical Record.)

Tuesday, June 10th—First Day—Morning Session.

The meeting was called to order in the Common Council chamber, City Hall, the President, Dr. Oren A. Horr, of Lewiston, occupying the chair.

Prayer was offered by the Rev. John. A. Bellows, of the Park Street Unitarian Church.

The reading of the records of the last meeting was omitted, as the printed volume of Transactions had been distributed to the members.

The Treasurer, Dr. Aug. S. Thayer, of Portland, presented his report, which showed the Society to be in a prosperous financial condition.

The report of the visitors to

THE MEDICAL SCHOOL OF MAINE,

at Brunswick, was made by Dr. Sumner Laughton, of Bangor. Ninety-nine students were in attendance during

the term which has just closed, and one-third of these received the doctor's degree, after passing a severe examination. The teaching was stated to be sound and eminently practical. The amount of clinical material is much greater than can be satisfactorily exhibited to the class. The school is worthy of the entire confidence of the profession of the State.

Dr. S. P. Warren, of Portland, reported a case of

ACUTE PULMONARY ŒDEMA IN LABOR,

with death from heart-clot—a very rare complication of parturition; and a case of labor at seven months, complicated by subserous, intramural and submucous fibroid tumor, eclampsia, sloughing of fibroids, septicæmia, and death. The subjects thus introduced were discussed by a number of members.

First Day—Afternoon Session.

Dr. How, of Newburyport, and Dr. Nichols, of Cambridge, delegates from the Massachusetts Medical Society, were welcomed and invited to participate in the scientific discussions.

President Horr then delivered his

INAUGURAL ADDRESS.

He reviewed the principal features of the first decade of the life of the Association, calling attention to the efforts for the elevation of the profession which were made by the founders of the Society, most of whom are dead, and showing that their successors owe them deep gratitude. Numerous recommendations were made for the improvement of the Association and the benefit of the community and the profession, particular emphasis being laid on the necessity of obtaining legislation for the registration of practitioners of medicine and surgery. The desirability of having the Medical School of Maine removed from Brunswick to Portland was also enforced.

Dr. Frederic H. Gerrish, of Portland, read a paper on the recording of cases, insisting upon

THE IMPORTANCE OF KEEPING COMPLETE RECORDS OF ALL CASES,

and recommending the envelope system, in which the notes are made at the bedside of the patient, and preserved without copying. The chief merit of the plan is that it is so easy of performance that one is induced to pursue it who would shrink from the labor of writing out an account of the day's work every night.

Dr. Gerrish also read some

NOTES ON ETHERIZATION,

the result of the observation of a large number of cases. He had found that ninety grains of bromide of sodium, administered during the twenty-four hours just preceding the etherization, furnish a considerable

PROTECTION AGAINST VOMITING,

a point of importance in abdominal and ophthalmic surgery; but that the time required to anæsthetize is considerably increased by this medication.

Dr. Hampton E. Hill, of Saco, reported

SIX OVARIOTOMIES, WITH FIVE RECOVERIES.

The cases were all difficult, being complicated with adhesions and otherwise.

First Day—Evening Session.

Dr. Daniel O. King, of Pontiac, was introduced as the delegate from the Rhode Island Medical Society.

Dr. Stephen H. Weeks, of Portland, reported a case of

PHOSPHORUS NECROSIS

of the inferior maxillary bone, on which he had operated by removing more than half the bone. The specimen was shown, and also the patient, who is already getting a somewhat serviceable jaw, though but a few months have elapsed since the surgical procedure.

Dr. Weeks also reported a case of

TAIT'S OPERATION.

The patient recovered, and was saved from insanity by the operation.

Dr. S. C. Gordon, of Portland, reported four cases of Tait's operation which have recovered and have experienced much benefit from the operation. A fifth case is now recovering from the operation.

Dr. S. Laughton, of Bangor, read an essay on

MICRO-ORGANISMS,

their pathogenic relations. The discussion which ensued was participated in by Drs. Dana, Smith, Fuller, and others.

Wednesday, June 11th—Second Day.

The committee to whom was referred the revision of the by-laws reported that no revision was necessary.

A paper on the

INDUCTION OF PREMATURE LABOR IN A CASE OF ALBUMINURIC RETINITIS

was presented, the obstetrical portion by Dr. Sarah Ellen Palmer, of Portland, in whose practice the case occurred, and the ophthalmic portion by Dr. James A. Spalding, who was called in consultation. The patient recovered her sight, which was almost destroyed by the disease. The necessity of an ophthalmoscopic examination of the eyes in all cases of pregnancy was insisted upon.

Dr. Charles W. Bray, of Portland, reported a fatal case of apoplexy in a girl of fifteen years.

MISCELLANEOUS CASES.

Dr. J. A. Donovan, of Lewiston, reported three cases. The first patient was a boy who had suffered at one time fracture of one parietal bone, comminuted fracture of the left femur, and compound lower epiphyseal fracture of the right femur. A large piece of the right femur just above the epiphysis was removed. The patient, who walks very well, was shown. The second case was one of fatal meningeal inflammation of the brain originating in chronic non-suppurative inflammation of the middle ear, and the third one of tumor of the kidney.

Professor Alfred Mitchell, of Brunswick, read a paper on the "Treatment of the Perineum in Labor." An animated discussion followed, participated in by many members.

Second Day—Afternoon Session.

The committee to whom was referred the suggestions in the President's address reported, recommending that a committee be appointed to confer with the trustees of Bowdoin College and

URGE THE REMOVAL OF THE MEDICAL SCHOOL OF MAINE

from Brunswick to Portland. The report was accepted, and Drs. M. C. Wedgwood, of Lewiston, J. B. Walker, of Thomaston, and F. C. Thayer, of Waterville, were appointed as the committee.

OFFICERS ELECTED.

The following officers were elected for the ensuing year: *President*—Thomas A. Foster, Portland; *First Vice-President*—Sumner Laughton, Bangor; *Second Vice-President*—Abial Libby, Richmond; *Corresponding Secretary*—S. W. Johnson, Belfast; *Censors*—George H. Cummings, Portland; B. F. Sturgis, Auburn; E. Adams, Litchfield; H. E. Hill, Saco, and A. L. Hersey, Oxford;

Recording Secretary, ex-officio—C. O. Hunt, Portland; *Publication Committee*—C. A. Packard, Bath; C. G. Adams, Portland; J. O. Webster, Augusta; *Business Committee*—J. E. Kimball and C. D. Smith; *Recording Secretary*—Charles D. Smith, Portland; *Treasurer*—A. S. Thayer, Portland.

Dr. A. L. Hersey, of Oxford, pronounced

THE ANNUAL ORATION.

He dwelt at length on the general subject of the etiology of disease, argued for greater diffusion of sanitary knowledge, and declared his conviction that the greatest hindrance to the elevation of the standard of medical education was the encouragement given to incompetent students by individual practitioners. The medical schools are not as much to blame as the profession at large.

Voluntary papers were read by Drs. Cammett and Crandall, of Portland.

THE COMMITTEE ON NECROLOGY

reported the death of four members during the past year, namely: Drs. John Taylor Gilman and J. S. Goodwin, of Portland, William Swazy, of Limerick, and C. W. Whitmore, of Gardiner.

Second Day—Evening Session.

A case of monocular diplopia was reported by Dr. Stephen H. Weeks, of Portland; and Dr. J. A. Spalding, of Portland, who had seen the patient in consultation, read brief accounts of the cases which he had been able to find in the literature of the subject.

Dr. Israel T. Dana, of Portland, made some extended remarks on doubtful cases of typhoid fever, which were succeeded by a long and interesting discussion.

Thursday, June 5th—Third Day—Morning Session.

Dr. Alonzo Garcelon, of Lewiston, as delegate to the American Medical Association, gave an account of the meeting in Washington. He reported that many gentlemen from various sections of the country had expressed

A DESIRE TO HAVE THE NATIONAL ASSOCIATION MEET IN PORTLAND,

and he suggested that this Society consider the feasibility of extending an invitation for 1886.

On motion of Dr. Weeks, of Portland, it was voted that a committee of five be appointed to consider the propriety of extending an invitation, through our delegates, to the American Medical Association to hold its meeting in Portland in 1886, said committee to have power to act after conference with the President and Chairman of the Board of Censors.

Drs. Weeks and Gerrish, of Portland, A. J. Fuller, of Bath, Laughton, of Bangor, and Garcelon, of Lewiston, were constituted such committee, with power to add to their number at discretion. The sentiment of the Association was strongly in favor of the movement. Portland has ample facilities for accommodating the Association in every way, and is so situated with reference to popular summer resorts as to offer extraordinary attractions to physicians from other parts of the Union.

The Board of Censors made their annual report. In addition to many details of small general interest, it appointed Dr. S. H. Weeks, of Portland, orator for the next meeting. Also delegates to other medical societies, and fifteen members to report on various subjects.

RESOLUTIONS WERE PASSED EXPRESSING SATISFACTION AT THE ENERGY OF THE DIRECTORS OF THE MAINE GENERAL HOSPITAL IN THE MATTER OF ERECTING AN OPERATING AMPHITHEATRE.

By a rising vote the Association unanimously adopted resolutions of respect to the memory of Dr. John Taylor Gilman, of Portland.

Dr. F. H. Gerrish, of Portland, was appointed chairman of the committee to secure legislation establishing a State Board of Health. The usual resolutions of thanks were passed, and the Association, after a most successful meeting, adjourned to meet in Portland June 2, 1885.

THE MEDICAL SOCIETY OF NEW JERSEY.

One Hundred and Eighteenth Annual Meeting, held at Cape May, N. J., June 10 and 11, 1884.

(Special Report for The Medical Record.)

Tuesday, June 10th—First Day.

The meeting of 1884 was called to order in the Stockton Hotel, on Tuesday, June 10th, at 4 P.M., by Stephen Wickes, M.D., of Orange, N. J., President in the chair. After prayer by Rev. G. F. Bishop, of Cape May, the Committee on Organization reported the number of delegates present.

ENTERTAINMENTS.

Dr. H. Genet Taylor, Chairman of the Committee of Arrangements, stated that the prominent citizens and cottagers had generously responded and offered a banquet, to be given at the Hotel Lafayette on the evening of June 10th, to be followed by a hop at the New Columbia Life-saving Service. The West Jersey Railroad manifested their liberality by placing at the disposal of the Society a complimentary train from Camden to Cape May and return. The

ADDRESS OF WELCOME

on behalf of the county of Cape May was tendered by Dr. James McCray. He stated that since 1876, the date of our last meeting at Cape May, a destructive conflagration destroyed all of the largest hotels except the Stockton. But Cape May had risen from its ashes, and now has as fine hotels as can be seen in any watering place in the world. Its sewer system is laid in almost every street, having a sufficient fall to quickly carry all effete matter far away from the town, thus giving such a sanitary condition that the mortality of both city and county is the lowest of any in the State. The water-supply of the town is in excellent condition, furnishing about one million gallons daily, and distributed through all the most thickly settled portions of the town, giving an abundant supply of excellent, pure fresh water from the very bowels of the earth and stored in three large tanks. From these it is distributed through mains to every part of the city. To a city having these and many other advantages he gave us a most cordial welcome.

He was followed by Hon. F. G. Melvin, Mayor of Cape May, who in a very happy manner expressed the satisfaction it gave him to welcome the Society to the city.

The minutes of the last annual meeting were then read and adopted.

The committee appointed to examine

THE ACCOUNTS OF THE TREASURER

reported as follows: Total receipts from 1874 to 1883, $12,271.38; total disbursements from 1874 to 1883, $10,627.16; balance on hand, $1,644.22; assets, $1,550, which are in U. S. four per cent. bonds, and a balance of $182.81 remaining in the Newark Savings Institution and $88.99 in hands of Treasurer.

REPORTS OF DELEGATES TO OTHER STATE SOCIETIES.

Dr. D. C. English, delegate to the Connecticut State Medical Society, reported a very interesting session held at New Haven.

Dr. Benjamin also reported that as delegate to the Pennsylvania State Medical Society he was deeply interested in the Society's proceedings.

The Standing Committee, acting as a Committee on Medical Ethics, report in the case of appeal of Dr. Warman, from the Mercer County Medical Society, that there is no ground for appeal.

PRELIMINARY STUDY.

The Committee on Judicial Business then presented the following:

Resolved, That this Society approve and adopt the recommendations of the special committee on the curriculum of the preparation to be required by persons contemplating the study of medicine in this State, as contained in the report presented at the last meeting of the Society. That to carry out the recommendations of said report in regard to a censorship, as therein contemplated, the Society is of opinion that two Boards of Censors be appointed, consisting each of five members of this Society, one for the northern and one for the southern part of the State, to whom should be presented for approval the credentials of all persons proposing the study of medicine, and in case of the insufficiency of such credentials, to examine the applicant in the branches of science and learning indicated in the report of the committee. That the Standing Committee prepare and report to the Society, for its adoption, such amendments to its by-laws as are necessary to carry out the plan and recommendations of the committee. That the Corresponding Secretary communicate the action of this Society on this subject to the district medical societies in this State, with instructions to adopt such regulations as shall effectually secure the observance of the measures adopted by this Society in their several localities. That the Corresponding Secretary communicate the action of this Society on the subject to the State medical societies of the several commonwealths of the Union, and respectfully request their co-operation with us in the effort to elevate the standard of medical education throughout the country.

Dr. E. M. Hunt spoke in favor of the resolution, and Dr. Benjamin opposed it on the ground that it failed to express the aim of those who favored a very high standard of medical excellence on the part of those who are to enter the profession. It was finally decided to defer consideration of the resolution till the following morning.

Adjourned till 7.30 P.M.

First Day—Evening Session.

On motion the

REPORT OF THE CORRESPONDING SECRETARY

(Dr. Elmer) was first listened to. He stated that "Transactions" had been received from the following State medical societies: Maine, New Hampshire, Massachusetts, Connecticut, Pennsylvania, Delaware, Maryland, Virginia, South Carolina, Georgia, Mississippi, Louisiana, Texas, Tennessee, Ohio, Indiana, Illinois, Michigan, Wisconsin, Minnesota, Arkansas, Colorado, California, and Oregon. Also from the New York Academy of Medicine, and from the College of Physicians and Surgeons of Philadelphia.

A copy of the report on "Preliminary Education" as presented by the committee, Drs. Pennington, Elmer, Jr., and Rogers, at the last meeting of the Society, was forwarded to the American Medical Association at its recent session in Washington. No special action was taken upon it.

The President then read his address on

LIVING AND DYING, THEIR PHYSICS AND PSYCHICS.

He said that life is an infinite mystery. The genesis of life is obscure only to the theophobiæ and agnostic. It is written with the pen of iron and with the point of a diamond in the rock forever. Man in his normal state when created and before he fell was deathless. His physical constitution was complete and its vital functions perfect, without liability to pain or sickness, and it may be to anything we call decay. It is only from the days of the flood that the lives of men in general have been reduced to their present limits. Before the flood men retained health and vigor of body through many centuries, and so far as we know sickness was unknown! Buffon says that one hundred years is the period Providence has allotted to man. Haller has collected one thousand instances of persons who have reached the age of from one hundred to one hundred and ten years.

Roger Bacon says that every man would be able to remedy his own decay if he would subject his health, from youth up, to a complete regimen, embracing food, drink, sleep, waking, motion, rest, evacuation, construction, climate, and habit of mind. For if any one would follow these rules from birth, he would live as long as that nature derived from his parents would permit. The fixed law which regulates the number of our years is that in the animal economy the duration of life is regulated by the duration of growth.

Fluorens claims that a man lives five times his period of growth; therefore, if the period of growth be twenty years he will live five times twenty years, or one hundred years. The doctor then spoke of the signs of impending dissolution, showing also how the mind may be so influenced by excitement and indifference as to be unaffected by dangerous exposure. In concluding, he said that when a man, in addition to his scientific attainments, cherishes a devout and abiding purpose to meet the claim of the God of nature upon his reverent personal service, he meets the claims of his profession, does good in his day, and commands the loving respect of his fellowmen. When such a life is finished its memory is blessed.

Wednesday, June 11th—Second Day.

The first order of business was a consideration of the resolutions of the special committee on the

CURRICULUM OF THE PREPARATION TO BE REQUIRED BY PERSONS CONTEMPLATING THE STUDY OF MEDICINE IN NEW JERSEY.

Dr. E. M. Hunt urged their adoption.

Dr. Kipp was opposed, stating that there already existed provision for the same object.

Dr. Godfrey favored their adoption.

Dr. Welch spoke at length, stating that the medical profession of to-day is much in advance of the point reached one hundred years ago. It is therefore a mistake to be too stringent in the matter of fixing a medical standard higher than that already established by the best colleges.

Dr. Watson stated that medical literature shows a decided advance in medical knowledge since one hundred years ago.

Dr. E. M. Hunt then moved the consideration of the resolutions *seriatim*. Carried.

The first resolution was read and adopted. The second resolution was amended by Dr. E. M. Hunt, by the insertion of a Standing Committee to be appointed each year, and the resolution as amended was adopted. The third and fourth resolutions were adopted. The fifth resolution was amended by the substitution of "State" for "Commonwealth," and adopted. The resolutions were then adopted as a whole.

THE REPORT OF THE STANDING COMMITTEE

was then given by Dr. T. J. Smith. He stated that there had been

MUCH LESS SICKNESS AND FEWER DEATHS IN THE STATE THAN FOR MANY YEARS.

It was also recommended to give much larger doses of quinine in malarial fever than are now employed.

The report on medical jurisprudence was by con-

sent made by Dr. Garrison. The report urged the necessity of having

EXPERT WITNESSES

recognized as such in the eye of the law, and to have such compensation made as was deemed just by the judge in a given case. It also urged that expert witnesses be employed by special selection.

Dr. E. M. Hunt offered the following resolution in this connection:

Resolved, That this Society recognize the importance of some legislation as to the best modes of securing expert witnesses. Adopted.

Dr. Benjamin moved that the report be referred to a committee of five, and that they report any modification at the next annual meeting. Not carried.

Dr. Hunt moved that the matter be referred back to the original committee, and that they, in co-operation with the Standing Committee of the Society, make such changes as they deem best, present the bill to the Legislature, and urge its acceptance.

The report of the

COMMITTEE ON THE ARMY MEDICAL MUSEUM

and Library of the Surgeon-General's office was then presented by Dr. B. A. Watson. He stated that a fireproof building was much needed for the Army Medical Museum, and also urged that the State Medical Society of New Jersey present to Congress a request that the Library and Museum be suitably cared for and protected by an annual appropriation.

Dr. Parrish gave the report on lunacy, saying that the

FACILITIES FOR THE CAREFUL STUDY OF NERVOUS DISEASES

in the majority of the insane institutions of the State are very few. The various appliances to restrain the insane are still used to some extent. It is to be hoped that these will soon become relics of the past.

Drs. T. A. Emmett and I. E. Taylor, of New York, were made honorary members.

Dr. C. J. Kipp then read an essay

ON THE PREVENTION AND TREATMENT OF PURULENT CONJUNCTIVITIS.

He said that the most frequently observed and most important variety of the disease is the purulent ophthalmia of the new-born. The prevailing idea that the disease is always due to inoculation he believes to be correct, and that in many cases, at least, the disease can be prevented by the employment of prophylactic measures. In 1854 Wm. Mackenzie wrote as follows on this subject: There is reason to believe that the disease is not infrequently an inoculation of the conjunctiva by leucorrhœal fluid during parturition, and therefore it might often be prevented by repeated injections of tepid water or a weak alkaline solution into the vagina in the first and second stages of parturition, and by carefully washing the eyes of the infant as soon as it is removed from the mother. The former precaution is scarcely ever, and the latter too seldom, attended to. He urged the necessity of every practitioner acquainting himself beforehand with the fact whether the mother is affected with any vaginal discharge. If the vaginal discharge is not removed, or if on the child being born nothing is done to it for perhaps half an hour or longer, every chance is given for inoculation of the eyes. It generally follows that when the child becomes affected with this ophthalmia, the mother had leucorrhœa or gonorrhœa, and that the eyes were not cleaned for some time after birth.

Alfred Graefe recommends irrigation of the everted lids with a two per cent. solution of carbolic acid immediately after birth. He also advises that the lids and surrounding parts be thoroughly cleansed with the same solution, and that, if possible, a compress wet with the solution be left constantly on the lids between the irrigation in all cases where the mother is known to have a vaginal blennorrhœa.

Credé has for years used a drop of a two per cent. solution of nitrate of silver in the eyes of all children born in hospital under his charge, and it is claimed that since this treatment was adopted only four cases of purulent ophthalmia have developed.

Dr. Kipp, however, does not favor the use of the carbolic acid and nitrate of silver solution, as they are too irritating and may do more harm than good. He thinks it better practice to carefully wipe from the eyelids any vaginal secretion which may adhere to them, and to wash out the conjunctival sac with plenty of clean tepid water. In England and other parts of Europe measures looking to the dissemination among the people of knowledge regarding the cause of the ophthalmia of the new-born, and the means to be resorted to for its prevention, have lately been under discussion in medical societies, and steps have been taken to distribute among all classes of society cards of instruction drawn up in the simplest possible language. The same might be done here by our State Board of Health, which has already done so much to enlighten the people with regard to the causes and prevention of disease. Dr. Kipp emphasized the importance of instructing the attendant of the patient with reference to the contagiousness of the discharge from the eyes, in order that proper care should be observed not to spread the disease.

In speaking of the treatment the doctor says that the disease varies considerably in severity, the difference probably depending upon the quality and quantity of virus introduced into the eyes. He recommends: 1. Cleanliness, as in this way all discharge is removed and the parts have a chance to heal. Of 156 cases of ophthalmia neonatorum treated by Dr. Kipp, the cornea was damaged in 38, or 24.3 per cent. Briefly stated his treatment is as follows: Scrupulous cleanliness, the application of cold to the lids in the early stage, and the application of the nitrate of silver to the conjunctiva during the pyorrhoic stage. 2. During the first few days of the disease, while the lids are hot and shining, the conjunctiva is tense and smooth, and the secretion consists of straw-colored water, he has found it best to do little more than to apply cold compresses to the lids, and to clear the eyes at short intervals. He prefers absorbent cotton to sponge for wiping away the discharges and for the purpose of removing the secretion from the conjunctival sac. He drops water from an eye-dropper between the slightly opened lids. The eyes should be opened and cleaned at least every hour. Compresses applied continuously. A reliable attendant is a great help in these cases.

When there is a very profuse discharge from the eyes, and when the conjunctivæ are a good deal swollen, he uses at first a one per cent. solution of nitrate of silver, if necessary a two per cent. solution, the indication being the presence upon the conjunctiva and cornea of shreds of nerve or less firmly adherent fibrin. To apply this caustic solution it is wise to so place the child upon the lap of the nurse that you can hold the child's head face upward between your knees. In this way the head can be firmly fixed. Corneal complications are most easily subdued by local depletion, leeches to the temples, and application of cold to lids.

Dr. T. G. Welch followed with an essay on "Many Drugs: Few Remedies." (The paper will be found on page 661 of The Medical Record.)

The following officers were then elected: *President*—P. C. Barker, M.D., Morristown, N. J.; *First Vice-President*—J. Parrish, M.D., Burlington, N. J.; *Second Vice-President*—C. J. Kipp, M.D., Newark, N. J.; *Third Vice-President*—J. W. Ward, M.D.; *Corresponding Secretary*—William Elmer, M.D., Trenton, N. J.; *Recording Secretary*—William Pierson, Orange, N. J.; *Treasurer*—W. W. L. Philips, Trenton, N. J.

Adjourned.

NEW YORK ACADEMY OF MEDICINE.

Stated Meeting, June 5, 1884.

FORDYCE BARKER, M.D., LL.D., PRESIDENT, IN THE CHAIR.

THE Statistical Secretary, DR. FRANCIS V. WHITE, announced the deaths of Dr. Thomas C. Chalmers and Dr. Gilbert L. Newcomb.

Dr. Alfred Mitchell, Professor of Midwifery in the Medical School of Maine, was introduced to the Academy, and invited to a seat upon the platform.

After the admission of twenty-four new Fellows THE PRESIDENT made the following remarks on the death of the Senior ex-President,

DR. WILLARD PARKER,

and Honorary Fellow

DR. SAMUEL D. GROSS.

Having welcomed each of our new Fellows individually, I assume the privilege of congratulating both them and the Academy on this accession to its numbers and its strength, with the full conviction that the benefit will be reciprocal. We count upon our new Fellows to co-operate with zeal and earnestness in the objects of the Academy, "the cultivation of the Science of Medicine," and in every good work for the advancement of the character and honor of the profession, and we cannot doubt that every one who has now joined us will find their individual gain and personal advancement in this work.

But I will not detain the meeting by repeating truths which must be obvious to all, as otherwise they would not be with us. In connection with the death of two of our most eminent and distinguished Fellows, I have learned certain facts in regard to the history of our Academy, which struck me as interesting and curious.

This Academy was founded thirty-seven years ago, and the roster published in 1880 gives the names of 118 original Fellows. One hundred of this number are now dead. I find that 7 died between the ages of 80 and 90, the average of this 7 being 83; 18 died between the ages of 70 and 80, the average being 73; 47 of the number died between the ages of 55 and 70, the average being 64.5. Of eight ex-presidents, who were original Fellows, the average age at time of death was 78.5. Only two of this class died under 70, Dr. John Watson at 55, and Dr. H. D. Bulkley at 67. Our present senior ex-president, Dr. James Anderson, has already passed his eighty-sixth birthday, and is still erect and mentally active, and nearly all the others of the eighteen living are, so far as I know, in vigorous health, mentally and physically, and still more or less in active professional life, and I but give expression to the sentiment of all in the prayer that they may long continue with us.

This history of the founders of the Academy seems to me remarkable, and I know not where its parallel can be found in any other class of one hundred and eighteen men, as to duration of life, who have been brought together without selection as to the probabilities of long life. There must be some explanation, which I leave for others to ascertain. I believe that it has been demonstrated that notwithstanding the hard life of medical men, their incessant toil, the frequent impossibility of regular hours for food and sleep, the burden of anxiety and responsibility as to the happiness and lives of others, their longevity as a class compares most favorably with other professions.

May we not ask whether the influence of this Academy has not been a factor in bringing about this result? The stimulus of such an association of educated men to lead an active, useful, regular, and honorable life; the incitement to constant mental and physical activity; the interchange of social feeling; the promotion of kindly sympathies and its influence in suppressing "envy, hatred, and malice, and all uncharitableness," or, in other words, in repressing all those emotions and passions which are so unfavorable to longevity, may have contributed more to this result than a careless superficial observation would suspect.

All are called upon to bear those sorrows and trials which are common to humanity. But I cannot forbear a reference to a recent loss which has befallen one of our founders,[1] who has the high respect and warm esteem of all the profession, who has ever been an efficient friend and supporter and a faithful office-bearer of this Academy, in the death of a most promising son, who had but recently entered the profession, and lost his life by disease contracted in the performance of his duty in Bellevue Hospital. In such a sorrow it may be some consolation, slight though it be, that the death was glorious, on the field of his early battle with disease, and the assurance that the afflicted parents have the sincere condolence of all in this Academy.

Within a few weeks the profession has lost two of the best known and most distinguished men in this country, both belonging to this Academy.

I shall not now repeat any of those biographical details which have been so generally published, but shall only refer to their connection with us and their personal qualities which seem to explain their great success and eminence in their professional lives.

Dr. Willard Parker was elected President of this Academy in 1856. At the time of his death he was its senior ex-president, and within a few months of eighty-four years of age. For many years he was the most prominent and conspicuous medical man in this city, not only as a surgeon, but as a general practitioner. With the exception of Dr. Benjamin Rush, a hundred years ago, I do not think any physician in this country ever commanded so powerful an influence over the community where he resided, both professional and public, as Dr. Parker did for many years in this city. His commanding and attractive person, his genial frank manner, his uniform cheerfulness, his practical uncommon good sense, his ease and fluency in conversation, all combined to produce a magnetic influence on those brought in contact with him. The most prominent characteristics of his professional mind were quick perception, a kind of insight which gave him an intuitive power of seeing the essential and radical features of diseases and distinguishing the incidental, or what was merely coincident or secondary. In the treatment of his cases I may say that while I do not know that he could be ranked as a great therapeutist, still I regard him as exceptionally successful, as I think he always relieved and made his patients feel that they were better. I have never known a physician who more thoroughly appreciated the influence of the *morale* on the *physique* even in improving function, or more constantly utilized this knowledge in his practice. All his patients had the benefit of the stimulating and tonic effects of cheerfulness, confidence, and hope. I may mention one illustration. Thirty-two years ago I received a note from Dr. Parker, which is still in my possession, saying that he had a call to see a patient some distance in the country. Dr. Sabine being out of town he gave a list of a few patients whom he wished me to visit. The first I found an extremely accomplished and clever lady. As I entered her room, her bed being in such a position that she could not see me, she said:

> "His very foot has music in 't
> As he comes up the stair."

I introduced myself, saying that I was saluted by a very apt quotation, but misapplied in the present case, as there was a great difference between B and P.

I am very certain that no one ever entered or left his consulting-room quoting from Dante's Inferno,

> "Who enters here leaves hope behind."

His general and hygienic directions to patients must have been of unusual excellence. Some years ago he

[1] Dr. Samuel T. Hubbard.

gave a course of lectures on health, both in this city and Brooklyn, which he called "The House we Live In," although they were meagrely and imperfectly reported in the daily papers. I well remember that I carefully read them all, and regarded them as the most sensible and useful of popular lectures on health which had appeared since the famous work of Andrew Combe.

Of his rank hereafter as a great surgeon, I am not competent to speak. Dr. Parker's life was too incessantly occupied by active practice to permit him to add very largely to the literature of our profession, but many valuable papers by him were published in the medical journals. I think few can estimate the number of lives which he has been the means of saving by his paper on "Operations for Abscess of the Appendix Vermiformis." I speak of this from a sense of personal gratitude, as it led to the saving of the lives of two of my own patients.

Many notes which I have received from Dr. Parker, during the past six years, and his presence at every meeting of special interest, so long as health permitted, warrant me in saying that he kept up to the last the warmest interest in the Academy of Medicine.

Professor S. D. Gross, who, within the past month, died in the seventy-ninth year of his age, was elected a Corresponding Fellow of this Academy in 1851, and an Honorary Fellow in 1876. No man of the present age—I assert this without any qualification—has made such a reputation as a great surgical teacher and writer as he. No one of the profession in this country has ever received such honor from universities and learned societies in Europe, and in this country the profession have given him the highest honors within their gift. In regard to him the voice of envy is never heard, and I believe no one has ever whispered, so far as I ever heard, that all these honors have not been honestly earned. Underlying all this I have for some years noticed the rare and curious fact, that even those who had no personal acquaintance with him seemed always to speak of him with an unconscious coloring of personal regard and affection. This is probably due in a large measure to the honesty, sincerity, and integrity of purpose which stamped his personal bearing, and was conspicuous and transparent in all his writings. I never heard a disparaging remark in regard to him, either personal or professional. His industry and his ability were marvellous; the amount of work which he accomplished was monumental.

I do not believe that in medical history there can be found another instance of a man seventy-eight years of age writing such a paper as the one read at the last meeting of the American Medical Association, on "Laceration of the Female Sexual Organs consequent upon Parturition." In its familiarity with all the recent literature of the subject, in its breadth of treatment, in its soundness of teaching, although in some few points many would hold different opinions, the most distinguished gynecologist of the present day might feel proud to have written it. Many may not know that one of his early works was a translation of Hatin's "Manual of Obstetrics," at this day rarely found, but I have now the honor of presenting a copy to the Academy.

The last time Dr. Gross met with us was the evening when this hall was first opened. On that morning I had received a telegram from him saying that he should be unable to be here, but he was subsequently induced by Dr. Flint to come. Dr. Acland, Regius Professor of Medicine, in his speech, alluded in warm terms to Dr. Gross as the senior graduate of Oxford. No one present at that time can forget his appearance when called up by the chair. It was evident that he had not anticipated such a call, but his speech impressed me as the most touching in its effective simplicity of any made that evening. It came straight from the heart, dropping with it some valuable suggestions, as he always did when speaking.

To each of the two men—Willard Parker and Samuel D. Gross—may be applied with much greater truth than it usually is, the very trite quotation:

> "He was a man, take him for all in all,
> I shall not look upon his like again."

Their name and fame are a part of the common inheritance of the Academy. There is no greater inducement to stimulate those who are coming after than the character and success of the great ones who precede, and therefore it is our privilege as well as duty to sacredly cherish their memory.

> "Lives of great men all remind us
> We can make our lives sublime,
> And, departing, leave behind us
> Foot-prints on the sands of time."

Dr. F. A. Burrall, at the close of the President's remarks, offered a resolution of condolence with Dr. Samuel T. Hubbard, on the death of his son, Dr. William Hustace Hubbard, which was unanimously adopted.

Dr. R. W. Amidon then read a paper entitled

A PLEA FOR MORE HEROIC SURGICAL INTERFERENCE IN AFFECTIONS OF THE BRAIN,

in which he referred, first, to the case in which Broca trephined over the speech-centre, and greatly relieved an aphasic patient by evacuating a cerebral abscess. After referring to some of the probable reasons why cerebral surgery has not been practised more extensively and thoroughly since Broca's operation than it was before, Dr. Amidon remarked that, judging from the statistics given in text-books on surgery, one was led to the conclusion that the operation was a dangerous one *per se*. He then reviewed the statistics published in the St. Bartholomew Hospital Reports, and offered the criticism that the rate of mortality—10.6—of the operation itself had been placed too high, because it had been based to a considerable extent upon cases treated without the beneficial influence of Listerism.

Dr. Amidon then gave an analysis of 100 published cases operated upon since 1879, and it appeared that of these the patients in 26 died; that in 23 of these there existed at the time of the operation symptoms of conditions which of themselves endangered life, thus leaving for the operation *per se* a mortality of only three per cent., a result which should rob the operation of its terrors. The author of the paper then referred to a remarkable case in which trephining was performed at five different times for the relief of spinal symptoms, the patient remaining well after the last operation.

After alluding to the fact that the dura mater is not particularly vascular, and does not easily take on the processes of inflammation, Dr. Amidon reviewed the cases in which it was interfered with, and although the mortality was apparently high, it was reduced to 7.6 per cent. by throwing out certain cases in which the conditions were such as to render death almost inevitable independent of operative interference with this covering of the brain.

Reference was then made to cases which illustrated how much injury the brain may receive without resulting in either death or marked permanent damage. The conclusion given was that the brain has a remarkable tolerance of injury, and a very great amount of reparative power.

Special attention was then directed to the topography of the skull, with reference to central localization, as given by Broca. After expressing his views concerning central localization, to the effect that neurologists were perfectly sure that there were certain definite regions of the brain, particularly parts of the cortex, which when irritated, compressed, or destroyed, gave rise to perfectly unmistakable symptoms—localized paralyses with localized epilepsies—Dr. Amidon gave the following conclusions concerning trephining for affections of the brain.

We have in triphining an operation proving fatal in

only *three* per cent. of published cases. The operation when combined with the operation of opening the dura mater has proved fatal in only 7.6 per cent. of published cases. The brain is an organ tolerant of injury and ready to take on reparative processes. We have knowledge which enables us to tell when certain parts of the brain are diseased, and we have anatomical data to tell us exactly where to operate to reach the location of the disease. We have, then, the element of safety and anatomical accuracy, and why should cerebral surgery be less daring than the surgery which has already successfully invaded the other important organs?

Dr. Amidon then spoke of the advantages which the dental engine possessed over the older instruments for the operation; for example, that the amount of bone removed could be limited, and the opening could be made of any desired shape, etc.

The operation should always be done under antiseptic precautions, without much compression from the flaps. Use cold antiseptic dressings, with the strictest quiet subsequently, the freest possible drainage, simple diet, slightly loose condition of the bowels, jaborandi on the slightest rise of arterial tension or temperature, quinine and alcohol *only in tonic doses*, anodynes as indicated, *never opium*, but to ease pain and induce sleep ten to fifteen grains of hydrate of chloral every ten to fifteen minutes, until the desired effect is produced.

Quinine and alcohol in large doses, and opium in any dose, aggravate intra-cranial inflammation, and, as he believed, might sometimes produce it. Where the dura mater and the brain are invaded, either accidentally or intentionally, these suggestions were equally important and more strictly applicable.

Good indications for opening the skull: an injury of the vault, however slight the marks of external violence, provided there be coma, aphasia, hemiplegia, or hemispasm of the lower part of the face, of the arm, or leg, or all three, constituting hemiepilepsy, whether accompanied or not by chills, fever, headache, and vomiting. General epileptic convulsions do not constitute so good indications for operation. Cases where, after the lapse of months, or years even, unmistakable cerebral symptoms follow an injury to the head—atrocious and incurable headaches, particularly if localized; aphasia, monophagias, or monospasms; hemiplegic or hemiepileptic seizures or general epileptic attacks, if they have an aura pointing to a localized lesion.

In compound fracture of the skull, whether the depression was visible or not, or whether or not there were cerebral symptoms, trephining was indicated. The dura mater should be opened when the hypodermic needle revealed the products of purulent inflammation or fluid blood beneath it.

Penetrating wounds of the substance of the brain, the presence of foreign bodies, hidden collections of pus, indicate trephining and search with fine dull instruments.

Finally, accessible neoplasm of the brain, which has resisted medical treatment and threatens life, should be excised, for the reason that it is usually single, seldom is followed by secondary deposits, is surrounded by a zone of inflammatory demarkation, and always kills by pressure.

Dr. J. P. Garrish related a case of traumatic epilepsy in which, five years after the original injury, he trephined, removed a depressed portion of bone, and cured the patient. He had trephined five epileptics and effected a cure in each case. He also referred to the case of a soldier whom he accidentally found in a barn, three days after the battle of Antietam, in a state of unconsciousness with a depressed portion of the skull. He trephined the man at once, who opened his eyes immediately after the pressure from the bone was removed, and the soldier recovered completely.

Dr. M. Josiah Roberts spoke of the advantages which the electrical trephine possessed over the dental engine, especially with reference to the size of the opening which each was capable of making; also of the advantage it had over the old instruments, in the use of which tactile sensibility was substantially abolished.

Dr. H. D. Noyes referred to two cases which had been under his care, one of which had been mentioned particularly by the author of the paper. The other was the case of a young man who sustained a fracture of the skull with a fissure of the frontal bone, a fistulous opening from which there was occasionally a discharge, hemiplegia, and an antecedent history that pointed toward abscess of the brain. He trephined and evacuated the abscess, the paralysis disappeared, sensibility and consciousness returned, and then there ensued a rise of temperature, with acceleration of pulse, but the patient ultimately recovered. He thought it had been in the minds of surgeons for a long time to undertake cerebral surgery, but the lack of ability to make an unquestionable diagnosis and the absence of definite indications had deterred them from resorting to these serious operative procedures.

It had been suggested by Dr. Amidon that in his (Dr. Noyes') last case the administration of large doses of quinine had probably developed a meningitis that caused the patient's death, and he would ask if there was a general concurrence in the view that the use of quinine and alcoholic stimulants militated against the patient's chances of recovery.

Dr. L. Putzel had made many autopsies after injuries of the skull with hemorrhage under the dura mater, and it had occurred to him that in some of them, at least, chances of life might have been afforded by trephining.

The statistics, however, which Dr. Amidon had given were open to the criticism to which all new statistics were liable, and that was that only the favorable cases, or the great part, were reported.

Concerning localization, he must differ with the author of the paper, and believed that not very much was positively known concerning cerebral localization. To be sure, it was well known that certain cerebral areas presided over certain functions, but we cannot tell positively that a lesion is situated exactly in that region. Besides, there are many cases in which the symptoms are not what they should be, according to our present knowledge, to enable us to decide positively concerning the exact situation of the lesion. We know positively only with regard to motor centres.

Dr. Putzel believed with Dr. Noyes, that the question of certainty in diagnosis was the key-note of the whole subject, and that before serious cutting operations involving the contents of the cranial cavity were undertaken, our means of diagnosis must be further advanced than they now are. With regard to quinine and alcohol, he thought it had not been positively decided that it was improper to administer them in such cases as had been mentioned. With reference to the administration of ten to fifteen grains of hydrate of chloral every ten to fifteen minutes, as recommended by Dr. Amidon, he should object, as he believed there was a very great liability that the combined effect of two or three doses might kill the patient.

Dr. Amidon, in closing the discussion, said concerning quinine that he agreed with Dr. Putzel and Dr. Noyes, that it was not definitely proven that the remedy could develop meningitis; but in the case which was under his observation, and which he had cited, there were symptoms which were usually regarded as those pointing strongly toward meningitis, but which disappeared with the discontinuance of the quinine, and at the autopsy, made some time afterward, there was no evidence that the patient had had tubercular meningitis from which she had recovered.

With reference to cerebral localization, all he had claimed was included in what he had read, and which he would read again; that is, neurologists are perfectly sure that there are certain definite regions of the brain, principally portions of the cortex, which, when irritated, compressed, or destroyed, give rise to perfectly unmistaka-

ble symptoms, localized paralyses with localized epilepsies.

PUBLIC PARKS OF THE CITY OF NEW YORK.

Dr. F. A. Castle made a few introductory remarks, and then offered the following resolution, which was unanimously adopted:

Whereas, A bill is now before his Excellency Governor Cleveland, for approval, which provides for the laying out of a number of parks in the upper part of the city and adjacent territory; and

Whereas, The health of a city's population is vastly improved by the number and size of its open areas; therefore,

Resolved, That it is the sense of this meeting that the plan sanctioned by the Legislature should meet with the approval of his Excellency Governor Cleveland.

On motion the by-laws were suspended, and the Academy adjourned to meet on the first Thursday in October.

Correspondence.

OUR PARIS LETTER.

(From our Special Correspondent.)

PASTEUR'S INVESTIGATIONS IN HYDROPHOBIA—THE DEATH OF PROFESSOR WURTZ.

Paris, May 23, 1884.

M. Pasteur, persevering in his researches which he commenced four years ago to discover a remedy against rabies, believes that his efforts have been crowned with success, and submitted the results of his experiments to the Academy of Sciences at its meeting on Monday last. Fully impressed with the belief that every virus is so attenuated or modified by a single inoculation as to render an animal so inoculated insusceptible for an indefinite period to the effects of subsequent inoculations, as in the case of vaccination and small-pox, directed his efforts toward other virulent affections.

In his culture of the rabic virus, M. Pasteur observed that it lost its strength in certain animals, and became more violent in others. In the rabbit, for instance, the intensity of the virus is increased, in the monkey it is considerably attenuated. He then proceeded to demonstrate his mode of operating, and gave illustrations of the results, which may be summed up as follows: He inoculated a monkey with the virus extracted from the brain of a dog that died from rabies; the monkey died. He inoculated a second monkey with the virus taken from the first, and then a third with the virus from the second. After the third inoculation he obtained a virus almost completely innocuous. With this last virus he inoculated a rabbit; the intensity of the virus was slightly increased. He then inoculated a second rabbit from the first, and the virus was still more intensified. From this he inoculated a third and a fourth rabbit, until it reached its maximum intensity. By this means he obtained virus of degrees varying in intensity, just in the same way as he obtained, in chemical media, the microbe of charbon more or less noxious. With the rabic virus, however, the microbe of which is still unknown, but the existence of which is for M. Pasteur certain, was cultivated through the medium of animals, each presenting a different aptitude to contract and sustain the malady.

Having thus cultivated the virus, M. Pasteur asserts that by inoculating any animal, or even man, with the virus, the subject so inoculated may be preserved from rabies, or even cured of the affection. The following is the manner in which he proceeds: He inoculates a dog with the three degrees of virus taken from inoculated rabbits in starting from the weakest degree, passing on to the next, until he reaches, after a few days, the maximum degree of intensity. If after this he inoculate the dog so treated with the virus of any other rabid dog, it does not get affected; it is insusceptible to the malady. Any other animal not submitted to this treatment succumbs, on the contrary, after the usual time. In pushing his experiments still further, and by way of comparison, M. Pasteur inoculates two dogs with the rabic virus. He leaves one to itself; after a lapse of seven or eight days, sometimes more, sometimes less, the dog becomes rabid, which assumes either the furious or the paralytic form. M. Pasteur inoculates the other dog, twice successively, with the attenuated virus of different degrees, passing from the weakest to the strongest, and before the termination of the primary incubation, that is to say within eight days, this dog was cured, or rather it did not get ill, from which M. Pasteur concludes that the second dog was influenced by the inoculation.

Encouraged by these results, M. Pasteur is induced to try these experiments on man; but before doing so he very judiciously proposed that a series of experiments be carried out in presence and under the control of a commission. This proposition has been favorably received, and application has been made to the Minister of Public Instruction to give it effect. At the recommendation of the Academy the following is a list of the members who are to compose the commission: Dr. Béclard, Permanent Secretary of the Academy of Medicine, Professor of Physiology, and Dean of the Paris Faculty of Medicine; M. Paul Bert, Member of the Institute, Professor of General Physiology at the Faculty of Sciences of Paris; M. Bouley, Member of the Institute and of the Academy of Medicine, Professor of Comparative Pathology at the Museum of Natural History; Dr. Villemin, Member of the Academy of Medicine, Professor of Clinical Medicine at the Military School of Medicine and Pharmacy of Paris; Dr. Vulpian, Member of the Institute and of the Academy of Medicine, Professor of Comparative and Experimental Pathology at the Faculty of Medicine of Paris; M. Tisserand, Director of the Ministry of Agriculture. Until the report of the commission is published any comment would be premature. I may, however, predict for the proposition a complete failure, not as regards immediate results, but as to the expediency of inoculating human subjects with such a potent virus. The idea is anything but pleasant or assuring, and its application would be beset with so many difficulties that it will have to be abandoned.

As a mark of esteem for his persevering efforts in the cause of humanity, and in recognition of the immense service he has rendered to science and to industry, it is proposed to offer M. Pasteur a seat in the Senate of the French Republic in the room of the lamented M. Wurtz, the eminent chemist, who died on the 12th inst.

You will have seen obituary notices of Professor Wurtz, so that one in this letter would be superfluous. I may, however, mention one circumstance in connection with his death which may not be generally known. The immediate cause of death was uræmic poisoning, by which is meant the intoxication of the system with all the elements of the urine, which in this case was produced by the reflux of urine to the kidneys and thence into the blood, resulting from voluntary retention of urine, which occurred under the following circumstances: A day or two before his death M. Wurtz had been travelling by rail, and not finding time to empty his bladder he retained his water for a considerable time. On his arrival at his residence in Paris he was seized with symptoms of blood-poisoning and was carried off in a few hours. I may mention that M. Wurtz had for a long time been suffering from diabetes.

The above melancholy event ought to be a warning to those who are in the habit of retaining their water for a length of time, and would point to the necessity of one emptying his bladder at short intervals. Many similar accidents have doubtless occurred in railway travelling, but have not been made known, and it is time that the railway companies should attend more to the comforts of travellers than they do, by stopping a sufficient time at the stations or having carriages fitted up for the convenience of travellers.

OUR LONDON LETTER.

(From our Special Correspondent.)

THE HEALTH EXHIBITION AND HEALTH CONGRESSES—THE INTERNATIONAL MEDICAL CONGRESS—TOUTING FOR PATIENTS AT CONTINENTAL SPAS—MEDICAL REFORM—THE COLLEGE OF SURGEONS AND ITS EXAMINERS—MR. TREVES' CASE OF ACTINOMYCOSIS.

LONDON, May 24, 1884.

THE Health Exhibition is nearing completion. Several congresses are to be held in connection with it. One is to open shortly to consider the question of dwellings for the poor. The one most directly interesting to medical men is that on domestic sanitation, which will meet from June 9th to 14th. Of this I hope to send you further details shortly.

The International Medical Congress, to be held shortly in Copenhagen, will not, I fancy, attract many English visitors. Danish is not a favorite subject of study in this country, and I fancy very few English medical men have any acquaintance with it. Most of them are well content if they can manage French and German. Of course all the proceedings will not be in Danish, but the visitor who knows nothing of the language of the country will be at a decided disadvantage. I have not yet been able to see any programme, so cannot give any particulars about the subjects to be specially brought forward at the Congress.

This is the season in which physicians deport their troublesome patients to continental spas. The competition among the resident practitioners is pretty keen, and touting for patients is actively carried on both directly and indirectly. It is very common for the physicians of foreign watering-places to pay a visit to London and go the round of several hospitals and call on as many medical men as they can make any reasonable pretext for doing. Their avowed object is to cultivate their English (!) and see British practice. Their real object is to tout for patients. Their English is bad enough as a rule, but I was not aware their sense of professional honor was as low as I find it to be. I have before me, as I write, a letter in bad English from a French resident at a well-known watering-place, addressed to a London physician and asking for patients. The Gallic Æsculapius further promises to pay his British colleague "£ one for every patient coming under treatment through your medium." I fear the recipients of this semi-circular letter will not be sufficiently affected by the promised bribe to make any considerable addition to the sender's list of patients.

Medical reform advances with slow steps. The block of business in the House of Commons is so hopeless that there is little prospect of the Medical Bill passing, and the twenty licensing bodies are all so selfishly intent on their own interests, and so utterly dead to the interests of the general body of the profession, that they will do their best to oppose it. The College of Surgeons, which has a larger constituency than any other medical licensing body in Great Britain, has once more exhibited the spectacle of a score of irresponsible councillors defying the declared will of its Fellows and members. The College sadly needs the proverbial new broom.

Amongst other needed reforms I would suggest that this pliocene body should in future select *gentlemen* for examiners. Some of its past examiners have certainly not been such. One of them, whose name I will not mention as he is not now living, could lay but scant claim to the designation. A London physician of my acquaintance was once literally dragged round the room by his coat collar by this man. This occurred during the last decade.

Going back a little farther, manners were still more uncouth. A London practitioner, whose name is well known both in this country and America, has told me that when he was being examined for his diploma his examiner swore at him. The candidate made a statement as to the treatment of a common surgical affection he had seen adopted in one of the London hospitals by one of the surgeons. The examiner denied the accuracy of this, and throwing himself back in his chair and elevating his heels in the air, used language I should be sorry to reproduce in your columns. The candidate replied that the President, who was present, was the surgeon he had seen employ the procedure in question. Turning round and addressing the President, the examiner said, "Here, ——, do you hear what this —— fool says? Did you ever —— ?

The President replied that he had, so the examiner said no more but went off to another subject. As the surgeon I have been referring to afterward became a writer on religious subjects, I presume he mended his manners later in life.

Present examiners are not as bad as this, but their manners are not of the best, as I can testify from personal experience.

I lately referred to the University of London. That institution is by no means perfection, as I took occasion to observe, nor are its officials all of them models of politeness. Its examiners are, however, all of them gentlemen, compared with those of Lincoln's Inn Fields, though not, perhaps, if measured by a higher standard. But perfection cannot be expected at a mere "cram-shop." Professor Ray Lankester has been lately writing in the *Pall Mall Gazette* advocating the establishment in London of a *real* University—not a mere examining body with an irresponsible senate to govern it.

The Morbid Growths Committee of the Pathological Society have pronounced Mr. Treves' case of supposed actinomycosis to be one of large-celled sarcoma.

Army and Navy News.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, United States Army, from June 1 to June 7, 1884.

MOORE, JOHN, Lieutenant-Colonel and Assistant Medical Purveyor. Ordered to perform, in addition to his present duties, those of Medical Storekeeper, San Francisco, Cal.

JOHNSON, HENRY, Captain and Medical Storekeeper. Relieved from duty at the Medical Purveying Depot at San Francisco, Cal., and ordered to report for duty at the Medical Purveying Depot, New York City, relieving Captain Andrew V. Cherbonnier, Medical Storekeeper. Captain Cherbonnier, on being relieved by Captain Johnson, will proceed to St. Louis, Mo., and report in person to Captain George T. Beall, Medical Storekeeper and Acting Assistant Medical Purveyor, for duty at the Purveying Depot at St. Louis, relieving Captain Beall of his duties as Medical Storekeeper. S. O. 128, par. 9, A. G. O., June 3, 1884.

FRYER, BLENCOWE E., Major and Surgeon. Granted leave of absence for one year, from July 1, 1884. S. O. 128, par. 7, A. G. O., June 3, 1884.

HALL, JOHN D., Captain and Assistant Surgeon. Granted leave of absence for three months, to take effect on his arrival at St. Paul, Minn. S. O. 128, par. 8, A. G. O., June 3, 1884.

HEGER, ANTHONY, Major and Surgeon. Assigned to duty at Fort McHenry, Md., as Post Surgeon. S. O. 108, par. 1, Headquarters Department of the East, June 2, 1884.

HUNTINGTON, DAVID L., Major and Surgeon. During the absence of the Surgeon-General, directed to take charge of the office of the Surgeon-General, and perform his duties. S. O. 129, par. 6, A. G. O., June 4, 1884.

BENTLEY, EDWIN, Major and Surgeon. Assigned to duty at Fort Clark, Tex., as Post Surgeon. S. O. 68, par. 1, Headquarters Department of Texas, May 31, 1884.

KOERPER, EGON A., Captain and Assistant Surgeon. Assigned to duty at Fort Keogh, M. T. S. O. 58, par. 1, Headquarters Department of Dakota, May 27, 1884.

BARNETT, RICHARDS, Captain and Assistant Surgeon. Now on sick leave of absence; is relieved from duty at Columbus Barracks, O., and ordered to report to Commanding General, Department of the East, for assignment to duty. S. O. 129, par. 2, A. G. O., June 4, 1884.

CUNNINGHAM, T. A., Captain and Assistant Surgeon. Ordered to relieve Assistant Surgeon C. B. Byrne, U.S.A., from duty at Fort Lewis, Col. Assistant Surgeon Byrne, when so relieved, ordered to proceed to Fort Gibson, Ind. Ter., and report to the Post Commander for duty. S. O. 112, par. 2, Headquarters Department of the Missouri, June 4, 1884.

BANISTER, J. M., First Lieutenant and Assistant Surgeon. Granted leave of absence for one month and seven days, to commence June 13th. S. O. 22, Headquarters Division of the Atlantic, June 5, 1884.

MCCREERY, GEORGE, First Lieutenant and Assistant Surgeon. Granted leave of absence for two months, with permission to apply to the Adjutant-General of the Army for two months' extension. S. O. 56, par. 3, Headquarters Division of the Missouri, June 5, 1884.

WILSON, GEORGE F., First Lieutenant and Assistant Surgeon. Relieved from temporary duty at Fort Canby, Wash. Ter., and ordered to return to his proper station (Fort Walla Walla, Wash. Ter.). S. O. 70, par. 2, Headquarters Division of the Colorado, May 26, 1884.

OWEN, WILLIAM O., JR., First Lieutenant and Assistant Surgeon. Having reported at these headquarters, in compliance with par. 5, Department Special Orders, No. 62, current series, will return to, and take station at, Fort Stevens, Oregon. In addition to his duties at Fort Stevens, Assistant Surgeon Owen will perform those of Medical Officer at Fort Canby, Wash. Ter. S. O. 70, par. 1, Headquarters Department of Colorado, May 26, 1884.

Official List of Changes in the Medical Corps of the U. S. Navy, during the week ending June 7, 1884.

MURRAY, J. M., Passed Assistant Surgeon. Detached from U. S. S. Passaic, ordered to U. S. S. Constellation.

MARTIN, W., Assistant Surgeon. Detached from U. S. S. Constellation, ordered to U. S. S. Passaic.

CRAIG, T. C., Passed Assistant Surgeon. Detached from U. S. S. Minnesota, ordered to U. S. S. Vandalia.

DEANE, C. W., Passed Assistant Surgeon. Detached from U. S. S. Vandalia, ordered to U. S. S. Minnesota.

HALL, J. H., Passed Assistant Surgeon. Detached from U. S. S. Minnesota, ordered to Naval Hospital, Brooklyn.

WALES, P. S., Medical Director. To continue present duty, until August 1, 1884.

WELLS, H. M., Surgeon. To temporary duty at Naval Laboratory.

MARSTELLER, E. H., Passed Assistant Surgeon. Detached from U. S. S. Vermont, ordered to U. S. S. Monongahela.

SCOTT, H. B., Assistant Surgeon. Commission to date from July 11, 1883.

MEANS, V. C. B., Assistant Surgeon. Commission to date from June 3, 1884.

HESTER, F. A., Assistant Surgeon. Commission to date from June 3, 1884.

Medical Items.

CONTAGIOUS DISEASES—WEEKLY STATEMENT.—Report of cases and deaths from contagious diseases reported to the Sanitary Bureau, Health Department, for the week ending June 7, 1884:

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Cases.								
May 31, 1884	3	5	64	4	123	56	0	0
June 7, 1884	6	11	67	5	142	50	0	0
Deaths.								
May 31, 1884	0	6	14	4	26	23	0	0
June 7, 1884	0	1	6	4	23	24	0	0

GERMANY'S HOME GUARD. — Germany has an army of eighteen thousand men, who devote their time to the grotesque task of hunting for trichinæ and other parasites in the flesh that is to be offered for food. This, say their French neighbors, is because the Germans adhere to the barbaric practice of eating raw meat.

HOW TO TREAT TAPEWORM.—A subscriber writes: "Will you kindly obtain an expression of the profession for the benefit of your subscribers upon the treatment of tapeworm. I have had under my care a most obstinate case in which the parasite is the tænia solium. I first used Dundas Dick & Co.'s capsules of male fern and kamala, and got away about thirty feet. In two months later I again used them, with some benefit. I have tried since then turpentine, kousso, and pumpkin seeds, and so far have not succeeded in securing the head, although the stools were very carefully watched and examined, and altogether some eighty feet of the worm passed.

VIRCHOW'S SPEECH AT THE TERCENTENARY BANQUET AT EDINBURGH.—Of the twenty-five speakers at the grand banquet held April 17th, after the ceremonies of receiving delegates and presenting degrees, Professor Virchow was the only medical man who was called upon. He said: "It is not merely an accident that the foundation of the Edinburgh Medical School was also a work of the reformers. Scientific medicine, as we know it to-day, is very young. At the same time and upon the same field when the great war between despotism and religious liberty broke out, a legitimate rebellion arose against that dogmatic medicine which had been recognized by the Church and received into her system. It was in the sixteenth century that the first great victories over Galenism were won by Vesalius and Paracelsus. Observation, experiment, criticism triumphed over tradition, research over speculation. To be sure, we are proud to represent a branch of human knowledge of the highest antiquity. (Cheers.) Medicine, like theology, derives its descent from priestly traditions, and we rejoice to be able to trace our genealogy to the time of the first establishment of Hellenism upon the islands now the crest of Asia Minor. But it is not the materia of Hippocrates that we teach our students to-day. The old humoral pathology has lost its roots since Harvey showed that the blood is a circulating spirit, not a parenchymatous juice. (Cheers). The University of Edinburgh was closing its first century before the new doctrines were generally accepted, and only about that time medicine began to be converted from an art into a science. But then its progress was a rapid one. (Cheers.) Five generations of men, after the common calculations, perhaps ten generations of professors, sufficed to produce that great reform in medicine whose fruits we now enjoy, but which is not yet completed. During this whole period the members

of the schools of Edinburgh stood in the first line of the active champions, and I am happy to say that through all these years a hearty alliance existed between the Edinburgh school and German medicine. (Cheers.) Since the time when William Cullen continued in clinical medicine the work commended by George Ernst Stahl and Triatrich Hoffman, until this day, the spirit of reciprocal esteem and of mutual help has filled all hearts, and sustained the confidence in the final triumph of the common flag. The Munros and the Bells, the Simpsons and Listers were also our masters. I myself, if I turn my eyes around me, I see immediately before me, and after our great Schwann, the much-lamented Goodsir, and I find after me a long series of younger friends, whose scientific education I helped to guide in the same direction as I think that distinguished professor would have conducted them. A professor is not only a teacher, *docendo discimus*. I know what I myself have received, and what science has received from scholars. The modern professor is not charged to construct new dogmas; his duty is to educate independent observers. For this purpose large and well-appointed institutions are put under his charge. Each of them should be a school of workers. We of the older generation, we had not such rich institutions for our instruction as the present students enjoy; we had not the same facilities of working as our assistants now possess. Therefore we expect that our assistants will excel us, and that our students will overtop our assistants. This University is now so rich in new and admirable institutes of the largest size, that we must perhaps express the wish that that size may not diminish the immediate influence of the teachers. May the spirit of true science never disappear from these buildings! May they serve to increase not only the welfare of the city, not only the glory of this land, but also the science of medicine throughout the world." (Loud cheers.)

Causes and Cure for Corpulence.—A stout, active man began to superintend the working of new beer in a brewery, and occasionally to sit up at night to watch the sweet-wort; an employment requiring neither activity or labor. Gradually he began to drink much new beer, in addition to leading a quiet and inactive life; he commenced to increase in bulk, and continued to enlarge until he became of such unwieldy size as to be unable to move about, and could not get up from the sitting or lying posture without help. His cheeks hung down to his shoulders and breasts, and finally he was dismissed as useless. He returned in two years, weighing but little over one hundred and forty pounds. His story was that, being unable to work, he was at first almost starved. When he became sufficiently reduced in size as to be able to walk about, he engaged as farm laborer, and was able finally to go through very hard work for a whole day on an extremely small pittance of bread and cheese. His health had never been so good as it then was, and his only drink was water.

Reducing Weight.—A gentleman weighing thirty-two stone and nine pounds, or four hundred and fifty-seven pounds, put himself upon a strict diet of four ounces of meat, six ounces of bread, and two pounds of liquid per day. In one week he lost thirty pounds, and in six months one hundred and thirty-four pounds. His health and spirits were much improved, and he was very active for a man of twenty-three stone, or three hundred and twenty-two pounds.

Antipathies.—The celebrated Erasmus, though a native of Rotterdam, had such an aversion to fish, that the smell of it threw him into a fever. Ambroise Paré had a patient who could never see an eel without fainting; and another who would fall into convulsions at the sight of a carp. What would have been the effect of an electric eel on these gentlemen? Joseph Scaliger and others could never drink milk. Gardan was disgusted at the sight of eggs. A King of Poland and a Secretary of France bled at the nose when they looked at apples. Henry III., of France, and many others had a great aversion to cats, mice, spiders, etc. A great huntsman in Hanover, who would attack a wild boar valiantly, always fainted at the sight of roasted pig, if he had not time to run away. These antipathies have been humorously accounted for by the doctrine of the transmigration of souls. Those who had been flies in a former state were horribly afraid of spiders; those who had been mice, did not like cats; and those who had been cats did not love dogs, etc. Amatus Lusitanus knew a person who fainted whenever he saw a rose, and always kept his house when they were in bloom. Scaliger mentions the same about lilies, and Bayle about honey. Bayle himself turned pale at the sight of water-cresses; Tycho-Brahé fainted at the sight of a fox; Henry III., of France, at that of a cat; Marshal d'Albret at a pig. A lady, wonderful enough, could not endure the feel of silk or satin. A man, not so strangely, was known to faint whenever he heard a servant sweeping. Nicanor swooned whenever he heard a bagpipe; Bayle fainted when he heard the splashing of water.

Septenary Periodicity.—The moon quarters every 7 days, and completes its revolution in 4 times 7, or 28 days. Natural, regular typical cases of menstruation occur every 28th day, or the 4th multiple of 7. The normal period of gestation in the human female and in the cow is a multiple of 7, *i.e.*, 40 times 7, or 280 days. The ewe which remains unimpregnated comes in heat every twice 7, or 14 days; the cow, the mare, ass, and buffalo, every 4 times 7, or 28 days. The whale also carries her young 280 days. Gestation in the dog lasts 63 days, or 9 times 7; in the cat, 56 days, or 8 times 7; in the fox, 42 days, or 6 times 7. The common hen sits on her eggs 21 days, or 3 times 7; the duck and goose, 28 days; the swan, 42 days, or 6 times 7; the peacock, 28 days; the crow, 21 days; the linnet, canary bird, pigeon, and goldfinch, 14 days. Bees' eggs hatch out in 21 days; moth eggs in 14. Fever and ague has a tendency to terminate spontaneously after the 7th, 14th, and 21st paroxysms, and relapses are apt to occur at the same time. Relapsing fever is a disease of 7 days' duration, common typhus is a 14-days' fever, and typhoid a 21-day disorder. The incubation of measles is 14 days, and it occupies 7 days, viz., 3 days of catarrh and 4 of eruption, before it declines. Scarlet fever and erysipelas occupy 7 days. Small-pox requires a double septenary period of 14 days; the first 7 days are occupied with the primary fever and the full development of the eruption up to its vesicular stage, and by the 14th day the secondary fever, which commenced on the 9th day, has gone, and the whole crop of pustules has been converted into desiccated scabs. In 1,034 cases in which measles were successfully inoculated the fever and catarrhal symptoms commenced on the 7th day and declined on the 14th. In 14 cases of erysipelas the period of incubation was 7 days.

The Number Seven.—Hippocrates says the septenary number, by its occult virtues, tends to the accomplishment of all things, and is the fountain of all the changes in life; and, like Shakespeare, he divided the life of man into seven ages. The teeth spring out in the 7th month or sooner, and are shed and renewed in the 7th year, when infancy is fully changed into childhood; at twice 7 years puberty begins; at 3 times 7 the adolescent faculties are developed, manhood commences, and men become legally competent to all civil acts; at 4 times 7 man is in full possession of all his strength; at 5 times 7 he is fit for all the business of the world; at 6 times 7 he becomes wise, if ever; at 7 times 7 he is in his apogee, and from that time decays; at 8 times 7 he is in his first climacteric; at 9 times 7, or 63, he is in his last or grand climacteric; and at 10 times 7, or threescore and ten, he has approached the normal period of life.

ORIGIN OF THE USE OF TOBACCO AS A MEDICINE.—Sir John Nicot, ambassador of the King of England to Portugal from 1559 to 1561, received a present of this then strange plant from Florida. He planted it in his garden, where it grew abundantly, and finally heard that a man had been cured of a *noli me tangere* on his cheek, near unto his nose, and which already had begun to take root at the gristles of his nose, by applying tobacco-juice and the bruised herb. From that time forward this plant began to be famous throughout all Portugal for ulcers of the leg, ringworm, and scrofula. It was finally sent to France to help Lady Montigny, who suffered with an ulcer bred in her breast, and the Countess of Ruffe to heal her face. The Lord of Jarnac caused the nicotine to be distilled and drank, mingled with the water of euphrasia, otherwise called eyebright, by one that was short-breathed or asthmatic, and it cured him. When the juice was absorbed it sometimes made the patient exceedingly uncomfortable and faint.

MOTHER MAPP, THE BONE-SETTER, was the daughter of a man named Wallis, who claimed to be a natural bone-setter who could set the bones of natural fools better than any skilled surgeon. Sally Wallis set up for herself, and succeeded in humbugging the citizens of Epsom to such an extent that they preferred her to Epsom salts and took up a subscription to keep her among them forever; but her fame extending to London, the dupes of that place got her to drive down once a week to the city. She always came in a coach and six with outriders. She was once mobbed by mistake for one of the king's mistresses, but when she swore roundly at them and said she was only Mrs. Mapp, *the bone-setter*, she was greeted with loud huzzas.

AN AGED SPIRIT-DRINKER.—Daniel McCarthy, of County Kerry, Ireland, died in 1752, aged one hundred and eleven. At the age of eighty-four he married his fifth wife, by whom he had two children. For the last seventy years of his life he drank plentifully of raw rum and brandy, and if he ever took wine or punch, he immediately drank as much spirits after it to qualify it. The fools and liars were not all dead in those times.

THE SWEATING SICKNESS first visited England in 1483, and repeated its visitations in 1485, 1506, 1517, 1528, and last of all in 1551. It was first brought to England by the foreign mercenaries who composed the army of the Earl of Richmond, who afterward became Henry VII. It had so quick a crisis that it was called the *Ephemera Britannica*, for often within the space of twenty-four hours the fate of the sufferer was decided for life or death. It sometimes seized principally upon males in the prime of life, and on the higher rather than the lower classes. Its ravages were prodigious, and the superstition went forth that Englishmen alone were destined to be its victims, and that it followed them into every distant country, while it spared foreigners, even in England.

THE GREAT FOG OF 1783 first appeared at Copenhagen May 29th, reached Dijon, in France, on June 14th, and Italy by the 16th. It spread from Stockholm up into Norway by the 22d, and was at Stockholm two days later, and then passed on to Russia. By the close of June it had progressed to Syria. The sun at noon looked rusty red; the heat was intense, and the air highly electric. Lightnings were awfully vivid and destructive in England, Germany, and Hungary. In St. Petersburg forty thousand persons were immediately attacked with ozone influenza, although the thermometer suddenly rose thirty degrees. Dry fogs had previously been noticed in the years 526, 1348, 1721, and subsequently in 1822 and 1834.

TREATMENT OF LEPERS IN ENGLAND.—A leper was looked upon as one legally and politically dead, he lost his right of citizenship and could not inherit property. The church not only regarded, but made him defunct by performing the solemn ceremonials of the burial service over him, on the day that he was consigned to the lazar-house. He was clothed in a pall, placed before the altar on trestles, and the mass for the dead celebrated over him, and then a shovelful of earth thrown upon him in imitation of the closure of his grave. After which time he was always obliged to wear the peculiar leper's garb, to carry a leper's stick, with which only could he touch any person, or thing, never being allowed to shake hands, or touch with his hands any person, animal, or chattel, or to wash his hands, or apparel, or anything pertaining to him in any running stream, or public watering-place, or to speak to any non-leprous person, lest his pestilent breath, or the infectious odor exhaled from him should annoy or infect any well person. In the year A.D. 1313 the King of France burned all his leprous and pocky people, as well women as men, for he supposed they had poisoned the waters, which caused his leprosy.

DR. GEORGE E. POST has been for many years a medical missionary in Syria, connected with the Presbyterian Church of this country. He has achieved a high professional reputation in that country, and the character of his work is quite graphically portrayed in a recent letter published in the *New York Evangelist*. The writer, who is Rev. Dr. Field, the editor, says: "He is the first surgeon in Syria. If he were to give himself up to private practice he could amass a fortune rapidly. As it is, he has a great many cases forced upon him, especially difficult cases of surgery. If a Turkish Pasha breaks his bones, he will have no one to set them right but the American Missionary. But he prefers to give his services to the poor, and of these services there is no end. Every man who gets into a street fight and is battered and bruised feels that he has a right to call on him for help. One morning we were riding out of the yard when we met several men coming in, one of whom was bleeding fearfully. The doctor sprang out in an instant, and calling for a pail of water washed the poor fellow's head till he discovered that the injuries were not fatal, prescribed for him on the spot, told his friends how to bind up his wound, wrote an order on the dispensary for the medicines which he needed, and springing into his buggy again, was off to some other duty. This sort of thing is of frequent occurrence. He is going from morning until night, giving his services in the hospital without any compensation, as well as his lectures in the college, writing books and editing a medical journal. He has prepared a series of text-books on surgery, materia medica, botany, zoology, and physiology, besides a concordance of the Arabic Bible, a large octavo volume. Then, for want of sufficient occupation to fill up his time, he edits a monthly medical journal which he has carried on his shoulders for years. It may also be said in regard to Dr. Post's literary work that he has been engaged recently on the preparation of a work on the flora of Syria and Palestine. This is not only the first work in Arabic on the subject, but the first comprehensive work in any language. It is expected that it will be of great value to students and all engaged in the work of Palestine exploration.

THE LEPROSY was introduced into England in the reign of Henry I., apparently from Egypt or the East by the Crusaders. At one time there were 150,000 in Europe, and nearly half the hospitals in England were built for them. They were so numerous in 1170 that they were empowered to erect churches for themselves and have their own leprous ministers.

THE ACETATE OF SILVER is a new form of silver recommended by Rosenthal for hypodermic use in tabes. He begins with a dose of 0.01 dissolved in 10 grammes of water, of which from five to sixty drops are injected.

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Original Articles.

PRACTICAL HINTS REGARDING THE METHODS OF EXAMINATION EMPLOYED AS AIDS IN THE DIAGNOSIS OF NERVOUS DISEASES.[1]

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(Continued from page 428.)

A TABLE OF THE MORE IMPORTANT TESTS OF THE NERVES OR NERVE-CENTRES.

Tests employed to determine the REFLEX EXCITABILITY of the spinal cord:
- The "SUPERFICIAL" or SKIN REFLEXES.
- The "DEEP" or TENDON REFLEXES.
- The "ORGANIC" REFLEXES.

Tests of MOTOR PARALYSIS are employed for the following purposes:
- To determine its EXACT LIMITS.
- To determine its DISTRIBUTION.
- To determine the TROPHIC CONDITION of the affected muscles.
- To determine the POWER OF COÖRDINATION of muscular movement.
- To determine the so-called "MUSCULAR SENSE."
- To determine the IRRITABILITY of the muscles.

Tests to determine the "IRRITABILITY" of the muscles:
- MECHANICAL TESTS—
  - For "*diminished muscular tension.*"
  - For "*increased muscular tension.*"
  - For *fibrillary twitchings.*
  - For *tremors.*
  - For *contracture of muscles.*
- ELECTRIC TESTS—
  - By the *faradic current.*
  - By the *galvanic current.*

Tests for the SENSORY NERVES enable us to decide respecting the following conditions:
- Abnormalities of TACTILE SENSIBILITY—
  - *Anæsthesia.*
  - *Hyperæsthesia.*
  - *Delayed sensation.*
- Abnormalities of SENSIBILITY TO TEMPERATURE.
- Abnormalities of SENSIBILITY TO PAIN.
- Abnormal condition of the ORGANS OF THE SPECIAL SENSES.

THE SPINAL REFLEXES.

"SUPERFICIAL" OR "SKIN REFLEXES."—These are performed by different segments of the cord. Stimulation of the skin of the sole of the foot by a scratch, prick, or touch with the nail,[2] for example, induces a contraction of the foot-muscles (*plantar reflex*) through the lower part of the lumbar enlargement of the cord. The skin of the buttock calls into action the glutei muscles (*gluteal reflex*), through a segment which corresponds to the escape of the fourth or fifth lumbar nerve. The skin upon the inner aspect of the thigh causes the cremaster muscle to draw the corresponding testicle toward the external abdominal ring (*cremaster reflex*), by influencing the cord at the level of the first or second lumbar nerves. The skin upon the side of the abdomen creates reflex movements of the abdominal muscles (*abdominal reflex*), by affecting a segment of the cord situated between the levels of the eighth and twelfth dorsal nerves. The skin upon the side of the chest creates a reflex response in the region of the epigastrium (*epigastric reflex*), which depends upon a spinal segment extending from the fourth to the seventh dorsal nerves. Finally, the skin between the shoulder-blades causes the posterior axillary fold or the teres major muscle to contract (*scapular reflex*), by influencing the spinal segment between the levels of the fifth cervical and third dorsal nerves.

By *means of these reflexes* we are thus enabled to test the various spinal segments, from the neck to the terminal extremity of the cord. Should any be found to be absent it should be remembered: (1) that the reflex excitability of the cord varies with individuals and is always greater in youth than old age; (2) that the plantar, cremasteric, abdominal, and epigastric reflexes are variable in health but are more constant than the scapular; (3) that cerebral lesions may impair them on the side of the hemiplegia, for reasons not as yet well understood;[1] and (4) that systematic lesions of Burdach's or Goll's columns (see Fig. 21) tend to diminish or abolish them.

DEEP OR "TENDON REFLEXES."—These are also of great value as a means of determining the condition of excitability of different segments of the cord. The ones now commonly employed are called the *knee-jerk* or *patella reflex;* the *peroneal reflex;* the *foot-clonus;* and the *tendo-Achilles reflex.* The method of obtaining these reflexes in the most satisfactory manner will be described separately. It is important, however, to remember one fact in connection with them before deciding as to their clinical significance, viz., that the *reflexes should be tested upon both sides and compared with each other,* because any perceptible differences between the two sides is a positive indication of some pathological lesion of the cord.

The *knee-jerk* has for years been recognized and employed by Charcot in diagnosis, although it was first systematically investigated as a clinical symptom by Westphal and Erb. Gowers remarks in a late work: "It is not a little curious that this knee-jerk, which for generations has amused school-boys, should have become an important clinical symptom."

To properly test this reflex movement of the limb, the muscles of the quadriceps extensor tendon must be put upon the stretch to a moderate degree, and the leg be unrestricted in its ability to respond. The common method employed is to have the patient cross the leg over the knee and allow it to hang passively at an angle of nearly ninety degrees. Perhaps a still better way is that employed by Gowers, viz., to allow it to hang over the forearm of the physician when his hand is placed upon the opposite knee of the patient; because, in this way the jerk is often elicited in stout people when it otherwise fails. The space between the patella and the tibia is then struck with a percussion hammer or the side of the physician's hand upon the bare skin with *sufficient*

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[1] This article comprises, in substance, the subject-matter of a course of lectures delivered by the author before a private class of post-graduate students.

[2] A sharp-pointed instrument is best adapted for the excitation of the skin reflexes.

[1] Gowers advances a theory to explain this fact which is certainly ingenious and possibly its true interpretation. He starts with the assumption that the corpora quadrigemina or the optic thalami contain a centre which inhibits or restrains the manifestation of the skin-reflexes in man, as the optic lobes have been proven to do in the frog. He assumes, in the second place, that the higher or motor centres of the cerebral cortex are capable in health of overpowering or controlling in some way this centre.

Now, if the motor centres are prevented from exercising this function (by becoming themselves diseased or mechanically separated from the fibres that are functionally associated with them, as in the case of apoplexy, softening of the brain substance, tumors, etc.) the centre which inhibits the skin reflexes is enabled to act without restraint, thus causing them to become abolished. On the other hand, when the motor paralysis is due to some lesion of the spinal cord, the fibres through which the inhibiting centre acts upon the spinal segments below the seat of the spinal lesion are severed; hence the skin reflexes are no longer controlled by the higher centres and are therefore enabled to respond to even more delicate tests than in health.

force to slightly increase the state of muscular tension which has resulted from flexion of the leg. This will cause a reflex contraction of the quadriceps extensor muscle and the foot will be jerked upward without the volition of the patient as a factor in the movement.

The *ankle-jerk.* If the muscles of the tendo-Achilles be put upon the stretch by flexion of the foot, a blow upon that tendon will cause a similar extension of the foot.

The *foot-clonus.* When the *excitability of the cord is excessive*, if the foot be firmly flexed and held so by the pressure of the hand against the sole, a series of rhythmical reflex movements of extension follows, which vary between six and ten per second. They can be traced upon a revolving drum by attaching a pencil to the foot, as easily as a sphygmographic tracing is made. This clonus is more apparent when the knee is firmly extended than when flexed.

The *peroneal reflex.* The tendons of the peroneal muscles pass to the bones of the foot at the outer side of the ankle. A blow made upon them when the *foot is bent inward* to produce a moderate degree of tension of these muscles, will elicit a reflex movement, as in the case of the patella tendon.

The "*front-tap contraction.*" Gowers has described a reflex test for increased spinal irritability that he considers particularly delicate. It consists in flexing the foot with the hand upon the sole, the knee being extended, and applying the blow to the muscles on the anterior aspect of the leg. It is followed by a reflex contraction of the muscles of the tendo-Achilles which are not directly affected by the blow.

Although the deep reflexes are commonly tested only in the lower extremities, the same phenomena may be elicited in the triceps or biceps muscle of the arm as in those of the thigh and calf, if subjected to the necessary position to insure tension of the muscles before the tap is given over the tendon.

Let us attempt to summarize the more important clinical deductions pertaining to these deep spinal reflexes.

1. A *persistent foot-clonus never occurs in health.* It indicates that the lateral columns of the cord are probably involved by some spinal lesion. In supposed hysterical affections this symptom will often decide the question of the existence of organic disease. It must not be mistaken for the involuntary foot-clonus which sometimes occurs when an unnatural posture is long maintained, even in health. It is usually *associated with exaggeration of all the other deep reflexes.*

2. All *reflex tests become abolished* when the muscles are separated from their connection with the spinal cord; hence severing of a nerve, posterior spinal sclerosis, compression of the spinal nerve-roots, destruction of the gray matter of the cord, poisons, etc., are often associated with their complete abolition.

3. Disease of the *lateral columns* usually *decreases the skin reflexes*, especially those of the trunk. This is particularly true of the so-called descending degeneration of these columns, which follows the development of cerebral lesions.

4. *Sclerosis of the lateral columns always increases the "deep" or tendon reflexes.*

5. When marked *incoördination of movements* is present and the *deep reflexes* are not abolished, it indicates that sclerosis of the lateral columns probably coexists with similar changes in Burdach's columns.

6. *Spasm* is a marked symptom in many diseases of the spinal cord. It commonly indicates an excessive action of the reflex motor centres. It is particularly common as an acute symptom in spinal meningitis. In chronic organic diseases of the cord, it assumes the form of *contracture of muscles*, especially if the lateral columns of the cord are attacked; this condition becomes transformed into that of genuine spasm when the slightest forms of peripheral impressions are experienced, as in delicately manipulating the muscles, for example.

THE ORGANIC REFLEXES.—*The bladder and rectum.*—The bladder and rectum are more or less affected, in respect to the performance of their functions, by those diseases of the spinal cord that tend to impair or destroy the special nervous mechanism connected with them. The nocturnal incontinence of children, who "wet the bed" in spite of all precautions against the accident, is an evidence either of spasm of the bladder, excessive stimulation of the centripetal nerves connected with the so-called "vesical centres" of the spinal cord, or atony of the sphincter muscle. If due to spasm, it may be excited by worms of the intestine. When the spinal cord is subjected to sudden injury low down, or is attacked by some disease-process that involves the *lumbar region* of the spinal cord, the bladder and the rectum are liable to be paralyzed. In such cases, if the paralysis be complete, the urine has to be drawn with a catheter. Sometimes, if not drawn at regular intervals, it overflows when the bladder becomes excessively distended. This compels the patient to wear some form of apparatus to prevent wetting of the clothing. Urinal overflow should never mislead the physician into the belief that the bladder is empty.

True incontinence is a rare condition in the adult. The term "incontinence" is not, however, restricted by many authors to that condition characterized by a continued escape of urine and emptiness of the bladder.

Bramwell gives the following table, as an aid in the diagnosis of two forms of incontinence that are commonly recognized:

	Occurrence.	Effect of effort, coughing, etc.	Age.	Urine.	Associated nerve-symptoms.	Effect of treatment.
SPASMODIC INCONTINENCE.	Occasional and intermittent.	Nil.	Generally young.	Clear, acid, and normal.	None, unless hysteria.	Good.
PARALYTIC INCONTINENCE.	Constant.	Forces away urine.	Any age; but generally old age.	May be ammoniacal and purulent.	If central, generally a similar affection of rectum and paraplegia.	Very often unfavorable.

In all cases, where either incontinence or retention of urine is developed in connection with abnormal nerve-symptoms, the urethra and rectum should always be carefully explored for the purpose of detecting disease, or of eliminating, if absent, all local causes of these conditions.

The sexual reflex.—In the *lumbar region* of the spinal cord a centre is situated that governs the acts of erection and seminal ejaculation. It may be called into action either by impressions made upon the sensory nerves of the skin of certain regions or by cerebral influences that are exerted upon the sexual centre as the result of some emotional impulse.

Destructive processes in this centre of the spinal cord cause a loss of the power of erection and ejaculation, *i.e.*, impotence. General spinal weakness from any cause may also lessen the duration and degree of erection or render ejaculation premature.

Linked with some forms of nervous disease comes *priapism*, or the state of erection without sexual desire. It may be a result of irritation or excessive stimulation of the following structures: (1) the sensory nerves (as in gonorrhœa); (2) the sexual centre itself; (3) the nerves that convey the emotional impulses from the brain to the sexual centre through the spinal cord; (4) the parts of the cerebral cortex functionally associated with sexual emotions. The latter are, as yet, undetermined. Priapism may be complete and painful or incomplete and painless. It may last for days. It occurs not infrequently in connection with disease in the lower cervical or upper dorsal regions of the spinal cord.

The pupillary reflex.—The last two cervical and the three upper dorsal segments of the spinal cord probably embrace the so-called "*cilio-spinal centre.*" From it sympathetic nerves pass to the muscular fibres of the iris. *Irritation* of this centre causes the pupil to dilate; *destruction* of it causes the pupil to contract. The tests for the "Robertson pupil" have been described in previous pages. This peculiar condition of the pupil is one of the most valuable signs of the disease called "locomotor ataxia" or posterior spinal sclerosis. It is the only condition of the eye that allows of the movements of the pupil in attempts to focus near objects and destroys at the same time the response of the pupil to varying degrees of light.

TESTS FOR MOTOR PARALYSIS.

As mentioned in preceding pages, the physician may be called upon to recognize five forms of paralysis of motion, viz.: monoplegia, hemiplegia, paraplegia, hemiparaplegia, and complete paralysis. If the paralysis be of an incomplete or partial form in any type, it is called "paresis."

Cerebral diseases commonly produce either *monoplegia* or *hemiplegia* of the opposite side of the body, in case paralysis occurs either as a result of localized pressure upon the brain or of destruction of some of its component fibres. In those cases where the lesion involves *both hemispheres*, the paralysis may be bilateral. Such lesions are generally present at the base of the brain. When "crossed paralysis" is developed, definite information is afforded respecting the seat and extent of the lesion.

Spinal paralysis is bilateral in the great majority of cases and is limited to the muscles of the legs (*paraplegia*). This is to be explained (1) by the fact that the motor tracts of the spinal cord are in such close relation to each other that acute diseases are seldom confined to one lateral half of the cord, and (2) to the fact that the muscles *below the seat of the lesion* are necessarily paralyzed in proportion to the amount of injury sustained by the motor fibres. In those rare cases, where the spinal lesion is situated above the point at which the nerves to the upper extremities are given off, bilateral paralysis is apparent in both extremities (arms and legs), constituting the condition termed "*cervical paraplegia*" by some authors.

The points to be tested, in any case of motor paralysis, have been enumerated in a preceding table. Without further explanation, we will now proceed to consider each separately.

THE EXACT SEAT AND LIMITS OF THE PARALYSIS.—To ascertain the exact limits of the paralysis is important as an aid in the determination of the seat of the exciting lesion, be it cerebral or spinal. The *peculiarities of attitude and gait* will often aid, in a rough and imperfect way, in deciding as to the muscles that are chiefly affected; but a more detailed examination of the separate muscles, by instructing the patient to *perform designated movements* that shall call different sets successively into action, will be more accurate and scientific. To employ these tests in a skilful manner, however, the physician must first be thoroughly familiar with the action of the various muscles, both individually and in conjunction with others.

In some forms of spinal diseases, where great accuracy in the diagnosis and localization of the lesion is required, it may become necessary to *test the motor condition of the various spinal segments* by means of the muscles that are governed by them. The investigations of Yeo and Ferrier upon the monkey tribe, as well as those of Marcacci and Bert upon dogs and cats, seem to have demonstrated that each pair of spinal nerves exerts an influence upon definite muscular movements. The limits of this article will preclude a summary of the results obtained by these observers; the reader being referred to the author's work, "The Applied Anatomy of the Nervous System" (D. Appleton & Co.), for details.

THE DEGREE OF MOTOR PARALYSIS.—Complete paralysis, of course, abolishes all power in the muscles affected, but paresis does not, and therefore varies in degree. It is often important to decide as to the *force that can be exerted* by the partially paralyzed muscles before completing a diagnosis. This can be best accomplished, in the muscles of the upper extremity, by the employment of an instrument devised by Matthieu, an instrument-maker of Paris, called the *dynamometer*. It is shown in the cut.

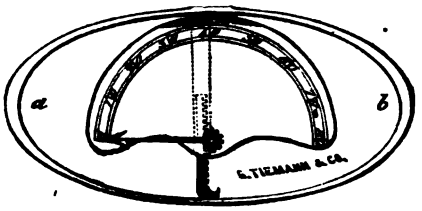

FIG. 23.—The Dynamometer of Matthieu. When taken in the hand and pressed, the two sides of the eliptical spring, *a b*, are approximated and the finger of the dial records the exact amount of force exerted upon the spring. One advantage of this instrument over all other devices of a similar kind is, that the index does not return to zero, but remains at the point indicating the greatest amount of force exerted by the hand of the patient. It is not necessary, therefore, to watch the index while the instrument is being used. Both hands should be tested separately and the results noted in the record of each case. A modification of this instrument has been devised to test the power of the muscles of the lower extremity.

When grasped in the hand, the index shows the amount of power that is exerted upon the spring. The index remains fixed until mechanically replaced after it has been used; this enables the physician to direct his attention to other points in the case while the patient is trying his muscles. It is really a test for the "grasping power" of the flexor muscles of the forearm only. An apparatus for tracing the effects of muscular contraction is sometimes attached to the dynamometer. It is called the dynamograph. It shows irregularities of muscular contraction.

The strength of the muscles of the calf can be tested, as Gowers suggests, by requesting the patient to *jump on tip-toe.*

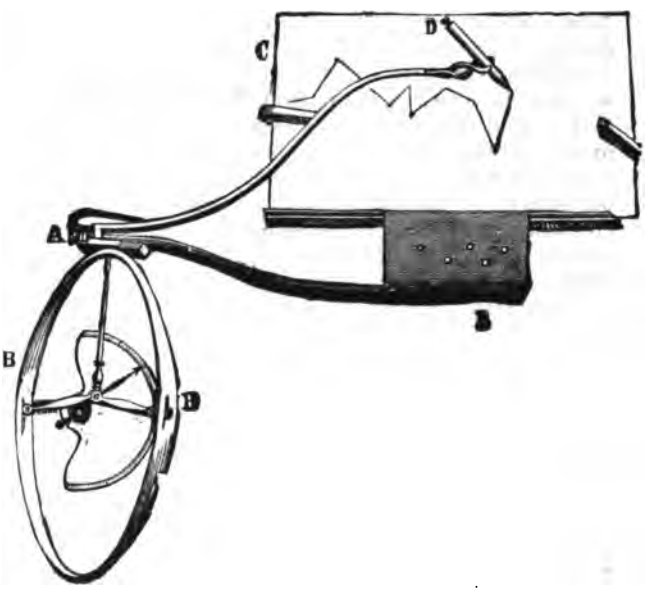

FIG. 24.—The Dynamograph. This modification of the dynamometer enables the neurologist to observe and record the condition of the muscles in respect to their ability to maintain tonic contractions. In health, the line drawn by the pencil should be *perfectly straight* when the elliptical spring is steadily compressed by the hand for a few seconds. If the grasping power is intermittent or incapable of being maintained continuously for an interval of several seconds, the line described on the recording tablet will be irregular. The slips of paper, indicating the deviations of the pencil, can be preserved in the case-book and by comparison they may show improvement or increase of the muscular debility.

A third method of testing the various muscles is to request the patient to *exercise all possible resistance* to some special movements that the physician creates by manipulation; or, on the other hand, to request the patient to perform some special movement and estimate the *amount of force required to prevent his doing so.*

Bilateral paralysis requires that the power of the muscles should be compared with that of a healthy individual of about the same muscular development as the patient, if great accuracy is desired. In unilateral paralysis, the healthy side can be used as a standard of comparison.

THE TROPHIC CONDITION OF THE MUSCLES.—The amount of atrophy or wasting that ensues simply from disuse of muscles must be distinguished from that due to a loss of the so-called "trophic function" in the nerves that supply the muscles.

Rapid wasting of a muscle occurs when the nerve-fibres that supply it are cut off from the so-called "trophic centre" of the spinal cord with which they are normally connected. The multipolar nerve-cells in the *anterior horns of the spinal gray substance* are the "trophic centres" for the motor fibres found in the anterior roots of each spinal nerve. When these cells become the seat of disease, the muscles undergo extreme and rapid atrophy. Similar changes also occur when the nerves are cut off from connection with them, as in wounds of a nerve, pressure upon a nerve, etc.

THE POWER OF CO-ORDINATION OF MUSCULAR MOVEMENTS.—Disease of the cerebellum and of the columns of Burdach and Goll in the spinal cord (see Fig. 21) are commonly associated with a peculiar inability on the part of the patient to *perform certain muscular movements in a proper way*, because the muscles do not act in the sequence necessary to accomplish them. This is termed "incoördination of movement."

Various tests are employed in determining the degree of this abnormal state, because one that will answer for the lower limbs will not for the upper extremities, or *vice versa*. Besides, it is necessary in these cases to decide both as to their ability to perform complex movements with accuracy and also as to the state of the so-called "muscular sense." Let us consider first the tests of the former.

When so-called "ataxic patients" are requested to *follow a designated line* in the floor or carpet as they walk across a room, they invariably keep their eyes fixed upon the floor and have extreme difficulty in following the line. Now ask such a patient to do the same with the *eyes looking straight ahead* of him, and the attempt will prove a still more lamentable failure than before. In advanced stages of the disease, the patient may fall.

A second manifestation of lack of coördination in the muscles of the legs lies in an inability on the part of the patient to *stand erect with the feet in close contact*, without swaying or falling. This is rendered still more difficult when the patient is instructed to close the eyes. It must be remembered, however, that an inability to stand erect and motionless with the eyes closed is not always due to ataxia. I have seen the same result produced artificially in a healthy subject by freezing the soles of the feet to a degree sufficient to destroy the appreciation of its contact with the floor or carpet. The test is a reliable one only for the presence of *marked anæsthesia* of the soles of the feet; hence it is common in ataxic subjects, in whom sensation is always more or less impaired.

Considerable stress may be laid upon this point, because it is stated by some neurologists that this symptom or test is to be regarded as a positive sign of locomotor ataxia. That it is a valuable diagnostic point in that disease, when associated with other evidences of its existence, cannot be disputed; but is by no means a pathognomonic symptom, as it might exist in any disease (cerebral, spinal, or functional) that could cause marked anæsthesia of both lower extremities.

In order to preserve the equilibrium during an erect posture when the feet are in contact, it is necessary that the nerves of sensation allow the keenest appreciation by the nerve-centres of variations in the amount of pressure exerted by the weight of the subject upon the different regions of the sole of the feet. When such information is withheld from any cause (chiefly by sensory paralysis or anæsthesia) the nerve-centres can no longer properly govern the muscles to counteract a tendency toward a fall, provided that the sense of sight is prevented from giving them the necessary information. This explains why it is that ataxic patients often notice a difficulty in washing the face at a washstand when the eyes are closed; why they keep the vision fixed upon the ground as an aid in governing the movements of walking; and why they keep their feet well apart when standing still, in order to increase their base of support. All the other symptoms of ataxia may thus be mechanically interpreted and be employed as tests in diagnosis.

Among these symptoms may be mentioned: a difficulty in climbing a flight of stairs, on account of the feats of balancing required to do so; a difficulty in placing the foot rapidly and accurately upon some small object, as in mounting a horse by means of the stirrup; and many others of a similar kind.

The tests for incoördination of the muscles of the upper extremity have not as yet been described.

The handwriting is sometimes seriously affected in ataxic patients, by an inability to make *continuous curves* with accuracy, as in the case of the capital letters C, D, G, etc. This is because the acts required of the muscles in making these curves are complicated and must follow each other in a certain sequence in order to properly execute them. Again, the *clothes are buttoned and unbuttoned with extreme difficulty*, because these simple acts require coördinated muscular movements of a complex character. Food and drink are carried to the mouth with difficulty in some cases, especially when the eyes are closed or in the dark. These patients cannot touch designated parts of the face with the finger with accuracy and rapidity when the incoördination of the upper extremities is well developed, or the so-called "muscular sense" is destroyed. These tests will be mentioned later.

THE MUSCULAR SENSE.—By this term we mean the power which each individual possesses, in health, of discriminating in regard to the amount of muscular force required to accomplish certain ends. Thus, for example, if two objects are held in the hands, the difference in weight between them should be estimated with an approach to accuracy. Again, if the eyes be closed, the fingers can be made to touch rapidly any designated portion of the body with perfect certainty. Movements of progression should be also performed with the eyes closed nearly as well as when open, if the distance be short and the location a familiar one. Finally, the handwriting should not differ materially as regards the formation of letters when made with the eyes shut or open.

Now in some forms of nervous derangements, the muscular sense is impaired; hence it becomes necessary to sometimes test it before making a final diagnosis. Several tests are commonly employed. They may be designated as the "weight" test, the "movement" test, and the "handwriting" test.

In testing the power of discrimination of weights held in the hands, it is best to have them all of *uniform size*, in order to avoid the patient using the sense of sight as a factor in his decision. Hanging different weights from the foot in a handkerchief will test the muscular sense in the lower extremity. Metallic balls of different thickness but of uniform size, either covered or uncovered, answer the purposes of the "weight" test.

To test the accuracy of movement, direct the patient to close the eyes tightly or blindfold him, and then instruct him to rapidly place the forefinger of either hand alternately on some spot upon his body which shall be designated in each instance, as the nose, upper lip, lower lip, ear of either side, etc. When the lower limbs are to be tested, he may be instructed to place his great toe upon the opposite instep, heel, knee-cap, etc., or to raise the foot to a given height when lying on the back, and then to slowly lower it till it rests upon some designated spot on the other foot.

The *handwriting* of a patient is often of value in diag-

nosis; especially when a sentence written with the eyes open is compared with the same written with the eyes closed. In health the muscular sense should enable almost any one to perform both with a fair degree of precision. In motor paralysis or ataxia the changes are marked; especially in the latter, because incoördination of the muscles prevents the formation of continuous and well-formed curves, even when the eyes are open, and utterly destroys the legibility of the letters if closed. The existence of tremor or the presence of profound motor paralysis will, of course, interfere most seriously with the ability of the patient to write legibly, if at all, irrespective of the aid of vision.

THE IRRITABILITY OF THE MUSCLES.

In some forms of cerebral and spinal disease it becomes necessary to test the so-called "irritability" of the muscles. Two forms of tests are employed for this purpose, viz., mechanical and electric.

By means of *mechanical tests* we are enabled to decide (1) as to the existence of *diminished* or *increased tension* of the muscles; (2) the *presence of twitchings* of individual muscular fibres in certain regions (as if a live animal were imprisoned beneath the skin); (3) the *presence of tremor;* and (4) the state of muscular rigidity and permanent shortening known as "*contracture.*"

Electric currents are furthermore employed chiefly in deciding the question of the existence of *degenerative changes* in the muscles. The increase or decrease of such changes, when they have been found to exist, can also be scientifically determined by the employment of electric tests from time to time.

MECHANICAL IRRITABILITY OF MUSCLES.—When the muscles are subjected either to manipulation, a light tapping with the tip of the finger, or a stroke with a percussion hammer, either an abnormal exaggeration or a diminution of the mechanical excitability of the part struck is sometimes detected in connection with disease or injury of the brain, the spinal cord, or of the nerves themselves.

The following clinical deductions are offered as a summary of these tests:

1. *Motor paralysis* usually decreases the mechanical excitability of the muscles affected.

2. When the "*galvanic excitability*" is markedly increased (reaction of degeneration), the *mechanical excitability* of the muscles is also increased.

3. A *marked increase* in the "*deep*" or "*tendon reflexes*" is likewise associated with an increase in the mechanical excitability of muscles. This is particularly characteristic of sclerosis or hardening of the lateral columns of the spinal cord.

4. *Atrophy*, or *wasting of the muscles*, as the result of disease-processes, such as functional paralysis, poliomyelitis, etc., usually tends to diminish the tonicity of the affected muscles (state of flaccidity). An exception to this rule exists for a time in amyotrophic lateral sclerosis and other conditions where marked muscular rigidity precedes the atrophy.

5. Any disease that tends to cause *irritation of the motor nerve-fibres*, or to arrest the *control of the brain over the spinal segments*, is liable to be associated with a rigidity of the muscles. Twitchings, muscular cramps, tremors, spasms, and contractures may be associated with this increase of muscular tension.

The distribution of the muscular rigidity differs if the exciting cause be confined to the spinal coverings or the substance of the cord itself. In the former case the flexors are chiefly involved; while hardening or sclerosis of the lateral columns of the cord usually causes the lower limbs to be firmly extended and closely approximated to each other.

6. The disease known as "progressive muscular atrophy" is the one most commonly associated with contractions of separate fibres or bundles of fibres in the muscles—the so-called "*fibrillary twitchings.*" These twitchings are not confined, however, to this condition. Hypochondriacs and certain functional diseases of the spinal cord may also be associated with them. A slow destructive process affecting the motor nerve-cells or the motor nerves themselves may also cause them.

7. A permanent shortening of muscles (state of *contracture*) is a frequent sequel to extensive atrophy or wasting of the muscular fibres. It may result also from the prolonged and unrestrained action of certain muscles whose antagonists are lacking in muscular power, as in the case of infantile paralysis.

THE ELECTRIC IRRITABILITY OF THE MUSCLES.—The various electric tests that are employed as aids in the diagnosis of nervous affections are too complex to be clearly described and explained to the general practitioner without entering somewhat into the domain of physics and physiology. Erb has lately written an excellent work upon the subject, and most of the later treatises upon physiology will afford the reader general information respecting the reactions of healthy muscle to the faradic and galvanic currents. The few practical hints which are given in this article are offered with an apology for their incompleteness; although it is hoped that they will assist the reader in his studies in this field.

A. Having first moistened the electrodes and connected them with the battery in action, hold them both in one hand (close together, but not in contact) and apply them to the ball of the thumb of the opposite hand to see if the current is passing properly. If the current to be employed is a *very weak one*, touch the electrodes to the tip of the tongue, before it is used upon the patient.

B. Next sponge the part of the patient's body to be tested with a weak solution of table-salt in warm water; in order to render the skin a good conductor of the electric currents.

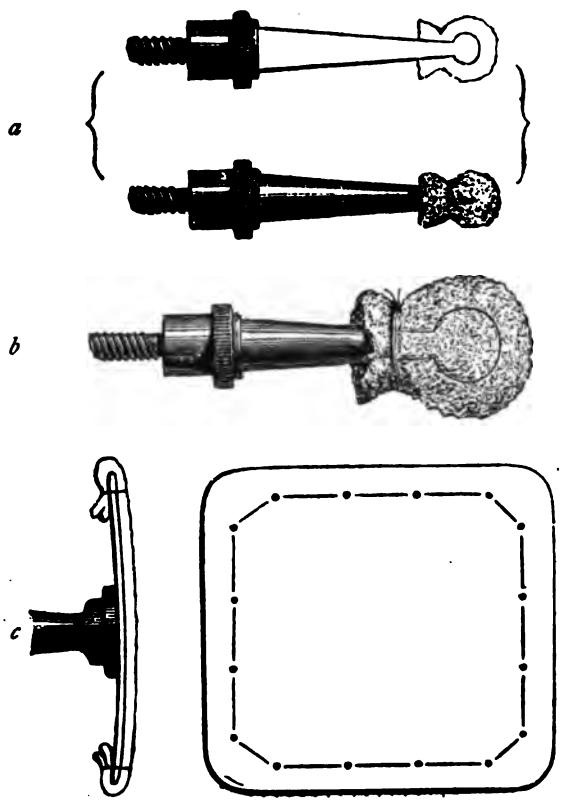

FIG. 25.—Various forms of Electrodes (natural size), adapted to a Screw Handle, not shown in the Cut. *a*, the "fine" electrode or smallest size; *b*, the so-called "small" electrode; *c*, the "medium" electrode. All electrodes are covered with sponge (as in *a* and *b*) or flannel or chamois skin (as in *c*),

C. The "polar method" is the one commonly used. Apply one electrode of large size, either over the breast-bone of the patient, at about its centre, or over the back of the neck. The other electrode (of small size) is

placed over the muscle to be tested; usually at the point where the motor-nerve enters its substance—the so-called "motor-point" of the muscle. In this way the action of the two poles can be readily distinguished. In my work, "The Applied Anatomy of the Nervous System," I have reproduced the cuts of Ziemssen, illustrating the situation of the motor-points of the various muscles. In case the interrupted or faradic current is to be employed, the "polar method" described above need not be strictly adhered to; as it is decidedly more painful than when the electrodes are less widely separated.

D. Use both the continuous or galvanic current, and the interrupted or faradic current in testing muscular reactions. The former is of the greatest value in diagnosis.

E. In studying the muscular reactions to the different currents employed, remember (1) that the negative pole is called the cathode (C.), and the positive pole the anode (A.); (2) that muscular contractions occur both when the current is altered in strength and when the circuit is closed or opened; (3) that the faradic current produces an apparently continuous muscular contraction, because its interruptions are so very rapid; (4) that very weak currents do not produce contractions; (5) that alterations in the strength of the current cause proportionate variations in the contractions; (6) that the contractions are short, sharp, and sudden in health; (7) that the effects of applying the electrode over the substance of the muscle and over its motor-point are identical in health, but not in some diseased conditions; (8) that the galvanic current will not usually produce muscular contractions while it is constant, but only when its strength is modified or when the circuit is closed or broken; (9) that the direction of the current can be changed without altering the position of the electrodes, by a simple apparatus that changes the cathode into the anode and *vice versa.*

F. The current passes always from the anode to the cathode. Hence, when one pole is placed on the breast or neck, and the other on the muscle to be tested, we can have a *descending current* if the cathode be on the muscle; or an *ascending current*, if the anode be on the same distant or neutral point.

G. An "interrupter" is necessary in employing the galvanic current.

The *descending current*, when closed and again broken, can thus give us:

1. The cathodal closure contraction.. C. C. C.
2. The cathodal opening contraction.. C. O. C.

The *ascending current*, when closed and again broken, can give us:

1. The anodal closure contraction.... A. C. C.
2. The anodal opening contraction.... A. O. C.

H. These four forms of contraction require currents of different strengths to produce them. They are therefore induced by *gradually increasing the number of cells* employed. The following order is the one commonly observed in healthy muscle:

1..... C. C. C.
2..... A. C. C.
3..... A. O. C.
4..... C. O. C.

It will be observed that the *cathodal contractions* appear first and last, while the *anodal contractions* follow each other; also, that the *closure contractions* precede the *opening contractions* of both the cathode and anode.

I. As the strength of the current is gradually increased, the contractions which have successively appeared become intensified proportionately (as is shown below), and new reactions are added.

First stage (moderate current), C. C. C.

Second stage (stronger current), C.′ C.′ C.′ and A. C. C.

Third stage (still stronger current), C.″ C.″ C.″ and A.′ C.′ C.′ and A. O. C.

Fourth stage (very strong current), C.‴ C.‴ C.‴ and A.″ C.″ C.″ and A.′ O.′ C.′ and C. O. C.

C.‴ C.‴ C.‴ is called "cathodal tetanus," because the contraction is very violent. Sometimes the anodal contractions both occur with the same intensity of current, thus merging the second and third stages into one. Again, A. O. C. may in some cases appear before A. C. C.

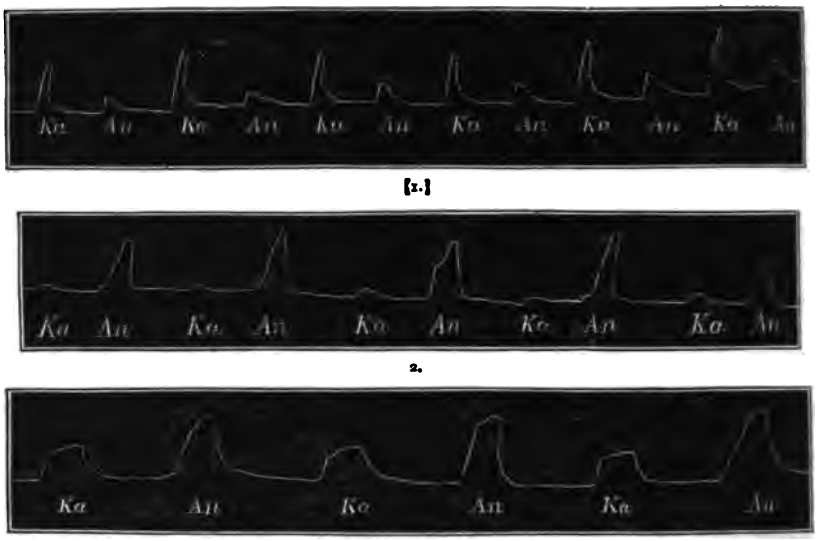

FIG. 26.—Curves of Closure Contractions in Direct (unipolar) Stimulation of the Muscles in the Distribution of the Peroneal Nerve in the Leg (Erb). Ka = C. C. C.; An = A. C. C. 1, curve of health, thirty-three elements; C. C. C. is greater than A. C. C.; 2, case of chronic anterior poliomyelitis, showing reaction of degeneration with thirty-three elements; 3, same case, with forty elements. In 2 and 3, the excess of A. C. C. over C. C. C. is apparent; in 3, the slow character of the contractions is very marked.

J. Disease of the nerve-centres or of the nerves themselves may cause modifications of the normal formula of muscular contractions. This constitutes the key-note to the value of electric currents in diagnosis. Mechanical devices are sometimes employed to trace the muscular contractions, as the sphygmograph does the pulse.

K. If the destructive process be within the brain or spinal cord, and *situated above the "trophic centres"* of the nerves supplying the paralyzed muscles, the electrical reactions of the paralyzed muscles will be normal in respect to the sequence and character of the muscular contractions. Sometimes, however, a *much stronger current* (galvanic or faradic) is required to produce them than over the healthy muscles. This fact is due to atrophic changes in the muscles. It may be of decided value in diagnosis.

L. When disease processes in the brain or spinal cord cause *destruction of the trophic centres* of the nerves that supply the paralyzed muscles, or when the *cerebro-spinal nerves themselves are seriously injured*, we encounter what Erb has described as the "REACTION OF DEGENERATION." This will require some explanation.

(1) Every nerve degenerates when separated from its trophic centre; hence, the electric excitability of the nerve both to the faradic and galvanic currents gradually diminishes and ceases entirely at the end of about two weeks.

(2) The *faradic current ceases to cause muscular contractions* when applied directly over the substance of the muscle. This is explained by the fact that the so-called "nerve-plates" within the substance of the muscle are degenerated, and currents of momentary duration fail to affect the muscular fibres.

(3) The muscular contractions produced by the *galvanic current are diminished for about ten days.* Subsequently the excitability of the muscles *to slowly interrupted galvanic currents becomes increased,* so that very weak currents may excite contractions. This may disappear in five or six months.

(4) The *polar reactions become altered in their sequence.* The anode contractions appear before those of the cathode, as shown below:

1.....	A. C. C.	instead of	C. C. C.	as in	health.
2.....	C. C. C.	"	A. C. C.	"	"
3.....	C. O. C.	"	A. O. C.	"	"
4.....	A. O. C.	"	C. O. C.	"	"

(5) The *character of the muscular contractions becomes altered.* In health, they are sharp, short, and sudden. When degeneration occurs, they are slow to appear; they are prolonged and continue even during the passage of the current; and, finally, they assume the character of "tetanic" contractions, irrespective of the strength of the current employed.

(To be continued.)

THE PRACTICAL TREATMENT OF ABDOMINAL HERNIA.

By W. B. DE GARMO, M.D.,

NEW YORK.

INGUINAL HERNIA.—In a previous paper under the above title[1] I endeavored to point out the importance of more careful attention being given to this subject, and in the remarks to follow I trust may be found some practical suggestions.

While differential diagnosis does not come within the scope of the present writing, I cannot pass it over without emphasizing the necessity of ascertaining by thorough examination the exact form, condition, and variety of the hernia before attempting its treatment.

The amount of pressure required for its retention may be estimated approximately by having the patient, who should be in the upright position, cough or strain, while the hernia is retained by the ends of one or two of the surgeon's fingers pressed over the canal.

Heather Bigg, of London, claims to have devised an apparatus which, applied over the canal, will indicate in number of ounces the exact pressure necessary for the retention of the hernia. I have little faith, however, in the practical utility of such a method, and deem it quite unnecessary, as a small amount of experience will enable the surgeon to judge with considerable accuracy as to the requisite retentive power in a given case.

The ordinary methods of truss-fitting are open to the most serious objection, for the reason that even those with large and constant experience seldom become so expert in shaping the springs that they are able to adjust them accurately to every individual peculiarity of form, and failing in this, the entire appliance is quite likely to prove irksome to the wearer or a complete failure in its retentive action.

In the majority of cases trusses are put on without being fitted to the person in any particular, but by those who attempt to fit them the usual method is to judge of the patient's shape by inspection, and bend the spring to the supposed form.

The difficulties of this undertaking will be readily understood when we take into account the fact that one could scarcely find two individuals of exactly the same form, even though their circumference be alike, and that all parts of the person cannot be seen at the same instant. Having many times experienced these difficulties myself, after repeated trials by different methods to overcome them, I have found in the simple process described below all that I had sought for, and have used it for the past two years with great satisfaction to myself and benefit to my patients. By its aid any good truss-spring can be fitted to a body of the most irregular shape with perfect accuracy, thereby ensuring safety in action and comfort to the wearer. By it truss-fitting is changed from mere guesswork to a more scientific basis.

The method referred to consists in securing a diagram upon paper of the exact shape of the pelvis on a line with the hernia. The only preparation necessary to carry out this proceeding is to have a piece of sheet lead one-sixteenth of an inch thick, half an inch wide, and for use on adults about twenty inches long; this should be covered with chamois-skin or kid, to save the patient the otherwise unpleasant sensation of having the lead placed upon the surface of the body.

Have the patient stand with the left side toward you, place the lead horizontally across the front of the abdomen with the end over the right internal ring, and thence pass it around the left hip to the spine or beyond; pass the fingers gently over the lead that it may be perfectly moulded to the form, and then remove carefully and place edgewise in the case-book or upon paper. A tracing of its inner surface may now be made with a pencil, and after smoothing the lead out upon an even surface repeat the operation in the same manner for the other side, which, when transferred to the paper, completes the circumference of the hips. The measure should also be taken in number of inches as a guide in selecting a truss. Having selected one of suitable size and pattern, its spring or springs should be shaped to correspond exactly with the diagram.

I have found in using this method that it secures far greater accuracy, and it does away with the necessity of trying a truss upon the patient many times to ascertain the changes required. In fitting ladies in this manner they are saved the mortification of exposure and the repeated trials of the truss before a fit is secured. The form can be taken beneath the clothing, and by the diagram thus obtained the truss fully prepared before its first application.

Before speaking of the selection of the truss I should perhaps state—as I have found that many physicians are ignorant of the fact—that every truss-spring should be so tempered that it may be shaped to the exact form of the wearer. A spring that will not stand this kind of manipulation is worthless, and should be returned to the maker.

Manufacturers know quite well how to produce such a spring, but owing to excessive competition some firms have been prompted to put upon the market inferior goods, fit for show only. Druggists would soon find that trusses of the latter class would remain dead stock on their hands if due attention was given to the mechanical treatment of hernia by physicians.

In selecting a truss we have a great variety from which to choose, many of them good but a great number absolutely worthless. So great is the number now being manufactured in this country that it is only possible to speak of them on general principles. It is the writer's opinion that no thoroughly efficient truss can be produced without the use of metallic springs. Certainly none such have been produced up to the present time. Those made of elastic webbing and other flexible material, while they may be worn for a time with satisfaction, are almost certain to allow the hernia to increase in size from their imperfect action; besides which they expose the wearer constantly to the danger of strangulation by leading him to believe that his hernia is perfectly retained when in reality it is lying in the canal or even protruding at the external ring. This state of affairs may exist for months without producing much inconvenience, but sooner or later the canal and rings are dilated to such an extent that the hernia becomes uncontrollable by all ordinary means. Many instances of strangulation have occurred in such cases in persons who believed their hernias securely held.

[1] THE MEDICAL RECORD, August 11, 1883.

In single trusses, that form of spring which crosses the front of the abdomen is far more efficient and comfortable than those which are applied from the affected side, and commonly known as the French or German truss. By encircling fully two-thirds of the body they retain their position better, and the direction in which pressure is made by the front pad is more in accordance with the indications as to the proper retention of the protruding viscera.

Personally I am opposed to the use of the single truss in any case, having seen many instances wherein hernia of the opposite side has been the undoubted result of their use. Nor is it in the least unreasonable to expect just such a result, when we consider the forces put in action and the altered relations produced between the abdominal parietes and their contained viscera. Strong pressure over the right inguinal region, for example, will diminish the antero-posterior diameter of the abdominal cavity at this point, with a consequent displacement of the viscera to the left side, producing thereby an unnatural pressure upon the inner part of the left inguinal region. Furthermore, the same predisposition which may have been the primary cause of the first hernia is quite as likely to act equally upon the opposite side.

In supporting both inguinal regions the pressure over the apparently sound side should be very light, while that over the hernia should be adequate to the requirements of the case.

I have of late used quite extensively an appliance similar to that originally designed by the late Dr. Hood, of Kentucky. Several patents have been obtained upon unimportant modifications in this truss, which have enabled the patentee to issue them under a new name; in other respects they are worthless.

The special advantages of the "Hood" truss are: First, that both inguinal regions are supported in every case. Second, being solid in front there is no relative change in the position of the supporting pads. Third, the arched springs, passing just beneath the crest of the ilium on either side, rest upon a surface almost entirely uninfluenced by muscular action, and hence are not liable to displacement. Fourth, the counter-pressure in the back is not over the spine, as in most other trusses, but comes upon the gluteal muscles, where it can be borne with less discomfort. Pads of any design which appear to be indicated can be attached to these springs; the springs may be of steel, tempered brass, or German silver, covered with leather, chamois, or, what is superior to every other covering for trusses, hard rubber.

In extreme cases of scrotal hernia the truss just mentioned may not be sufficiently powerful, and in such cases I am in the habit of using a truss well known to the trade as the "Radical Cure" truss. That this truss has the special curative action once claimed for it, is an absurdity scarcely worth a denial in this place. On the other hand, I believe it to be, when *judiciously used*, one of the most valuable appliances at our command for the mechanical treatment of certain cases of inguinal hernia.

My custom has been to employ it in difficult cases, and to use it only until the case has been brought under control, after which I have removed it and applied in its place either the "Hood" or some equally light truss. For this special use I know of nothing its equal, but I do not endorse it as a suitable appliance for permanent wear. I have seen much harm result from its indiscriminate use by incompetent truss-vendors. Like many other valuable remedies, it should be used only under the supervision of the intelligent physician.

In the catalogues of most instrument-makers will be found cuts representing "trusses for scrotal hernia," with pads of enormous size attached to the spring, and straps around the thigh to hold them in place. The construction of such an ungainly, cumbersome appliance is based upon total ignorance of the subject, and the belief that the larger the hernia, the larger should be the retaining pad, while in reality the contrary rule holds true. Within certain reasonable limits it is best to select a small, prominent pad for the first retention of a large hernia, changed to a larger and more flat pad as the case improves, and it is equally advisable to use on a recent hernia the one last mentioned.

Scrotal hernia merely indicates a degree in the development of inguinal hernia, and requires no special treatment if reducible.

Several pads have been designed with the view of preventing pressure upon the spermatic cord, most prominent among which are the "horse-shoe" pad of Dr. Wood, of London, and the grooved or "multipedal" pad of the late Dr. Riggs, of this city. After repeated trials I am convinced that neither of them protects the cord in the slightest degree, although I have used that devised by Dr. Riggs very frequently, because it retains its position upon the body somewhat better than the smooth convex pad, and is equally efficient in the retention of the hernia. Furthermore, I believe that if a truss is properly applied the spermatic cord does not require any special protection; only when the pad rests upon the pubic bone is the cord compressed, and in this position it should never be worn.

The centre of a truss pad should not be over the external ring, as most frequently applied, but as nearly over the internal ring as it can be worn and retain the hernia. In scrotal hernia of long standing the internal ring is dragged down, and the canal shortened to such an extent that it becomes necessary to place the pressure low; if, however, the case be properly cared for, after a few months the truss will prove equally efficient if placed higher, and it is quite essential, in order to secure the greatest amount of improvement, that its position should be so changed.

In cases where an attempt is made to produce a cure, it is always advisable to have the patient wear a truss at night as well as during the day. A light elastic truss is well suited for night use, and the change from that worn in the daytime should always be made in the recumbent position. I believe it to be an impossibility to combine in a single appliance one which shall be equally good for night and day use.

In the management of hernias that are reducible, it is not only necessary that the patient be given an appliance that is exactly suited to the requirements of the case, but it is equally essential that he be carefully instructed in its proper use, and that it be modified from time to time as his condition improves. The hernia once under the control of the truss, should never be allowed to protrude, even for a moment; the patient should never stand upon his feet or assume the upright position without having the appliance in place. These suggestions must be strictly followed in order to secure the best results; besides which, it is a fact confirmed by many observers, that if a previously neglected hernia is retained for a time, there is, upon its descent, far greater danger of strangulation than ever before. This should be carefully impressed upon the mind of the patient, in order that he may guard himself in this respect.

Persons suffering from large hernias are frequently under the impression that a suitable truss will be at once efficient in action and perfectly comfortable to wear. This is an error which should be removed from the patient's mind before treatment is commenced, otherwise he may become discouraged and not persevere in the use of an appliance, which may be in every way suited to his case. In slight cases a truss should not cause any amount of discomfort from the first; but in cases requiring strong pressure, it is absolutely certain that the patient will experience considerable pain, causing him, in many instances, more annoyance than has his hernia. This difficulty is, however, limited to the first three or four days, after which the skin becomes accustomed to the pressure, and little, if any more trouble will be experienced. If the patient is prepared for it beforehand, he will usually go through the tempering period without

much complaint; if not, he is quite as likely to abandon the appliance under the impression that it is not right.

It is best to instruct the patient respecting the absolute cleanliness of the parts and of the truss. If the truss is of hard rubber, it should be washed at least every week; if of soft material, it should be covered by a home-made slip of linen or muslin, which should be changed frequently. These precautions and the use of the powder recommended in my previous paper will, even in the most sensitive, prevent the formation of troublesome sores.

THREE CASES OF COMPOUND DEPRESSED FRACTURE OF SKULL,

WITH REMOVAL OF DEPRESSED BONE IN FIRST AND SECOND CASES, NO OPERATION IN THIRD—RECOVERY IN ALL.

BY ALFRED NORTH, M.D.,

WATERBURY, CONN.

CASE I.—James H——, aged twenty-four; Irish; laborer. On the night of June 2, 1870, went fishing about one-half mile from home. About midnight, when absorbed in his work, a man approached from behind and dealt him a blow upon the head with a club. He was felled to the ground, where he lay unconscious until 5 A.M., June 3d, when he regained consciousness, got up, and walked home without assistance. He then cleansed the wound thoroughly, staunched the blood by a compress and bandage, and came to my office, arriving about 6 A.M.

I removed the dressings, examined the wound, and found that the force of the blow had fallen upon the anterior part of the right parietal eminence. There was a scalp wound about two and a half inches in length extending antero-posteriorly. Beneath this there was a stellate fracture of the bone with considerable depression, the bone being broken into many fragments. The area of depression was about the size of a silver dollar, and about half an inch in depth.

I advised him to go home and prepare for an operation, which he willingly did. Was not unconscious at any time during the day, but suffered from severe headache and feeling of pressure at seat of injury.

At 12 M. I proceeded to operate, with the assistance of Dr. Castle. Enlarged the scalp wound and drew the edges aside. As the fragments could be seized with forceps the trephine was not used. Removed one piece of bone after another until thirteen fragments had been removed. Dura mater was, as far as could be ascertained, not injured. Then smoothed off the edges of the bone well with forceps, removing all loose spiculæ and sharp points. The region of fracture was limited to the right parietal bone.

I then placed a drainage-tube in the wound and closed it with silk sutures. The dressing was completed by the application of a compress and bandage.

A detailed history of the progress of the case after the operation was not kept, but the facts of treatment were substantially as follows: After the first or second day the wound was regularly cleansed by passing carbolized water through the drainage-tube by means of a syringe. There was intense swelling and infiltration of the scalp on this side of the head, especially about the wound. The ice-cap was used from the start. Patient was delirious and raving the greater part of the time for three weeks after the operation, with occasional rational periods. At one time during the third week he would have jumped from a third-story window had he not been restrained. Opium, bromide, and chloral were used as the case required. The diet consisted chiefly of milk. After the third week there was no delirium, and convalescence henceforth was uninterrupted.

Was able to be out of bed on July 26th. Two weeks after this walked to my office. Was strong and well enough to go to work about the middle of August.

Three pieces of bone have been discharged from the wound at different times since the injury, the last two years after the operation. For one year immediately after the injury he was troubled with vertigo, and was so much affected by the sun's heat that his wife had to carry his dinner to him daily during the first summer. Has not been able to bear noise or excitement to any extent at any time since the injury. Alcohol has a very prompt and peculiar effect, producing very silly and idiotic appearance and actions. Is obliged to live a quiet and retired life.

Aside from the above-named particulars his general health has been good, and he has worked constantly to date.

CASE II.—William E. H——, twenty-seven years of age; employe of the Blake & Johnson Machine Co. The accident occurred on September 3, 1883. H—— was tending a small planer enlarging a groove in a twenty-five-pound casting. At one end of this casting was an elbow with a projection of six or eight inches at right angles to the main portion. The planer works automatically, moving slowly forward and returning quickly. In the upright portion of the machine is what is called the tool-post, a piece of mechanism carrying the planing tool, which is held in place by a screw, the square head of which projects an inch or more directly toward the casting. When the planer bed moved forward there was left only about four inches space between the projection on the casting and the end of this screw-head, which is about three-quarters of an inch square. Wishing to obtain a better view of the work the planer was doing, H—— leaned forward so that his head came directly between the casting elbow and the projecting screw-head. Unconscious of his danger, he kept his head in this position until the casting elbow drove his head against the projecting screw-head, which slowly crushed its way through the skull in the right temporal region, depressing the bone against the brain.

The maximum point of contact being reached, the planer bed shot backward and H—— fell to the floor. He was put into a hack and brought to my office, not having been unconscious in the meantime. He walked up one flight of stairs to reach the office.

Upon examination there was found to be externally a scalp wound, semicircular in shape, convexity upward, anterior extremity near outer angle of orbit, and posterior backward, toward and above the ear. The scalp flap was loosened and turned downward. On introducing the finger the bone was found to be fractured into several fragments, and at the anterior edge to be depressed about one-half an inch.

The nature of the injury and the operation required being explained to him, he expressed his entire willingness to submit to my judgment. He was put into a hack and driven to his home, which was about half a mile distant.

Patient being etherized, I proceeded to operate, being assisted by Drs. Abbott and Axtelle. I first enlarged the opening in the soft parts, both forward and backward, and drew the flap well down. On examination the bone was found to be so much crushed as to put elevation out of the question, so I proceeded to remove the fragments. First removed a small fragment from anterior inferior region of depression. This seemed to be a portion of the tip of the great wing of the sphenoid. Next removed from posterior superior region a fragment about size of a silver twenty-five-cent piece, and on examination of inner surface of this found the groove which lodges the termination of the trunk and the beginning of the two branches of the middle meningeal artery, thus demonstrating it to be the anterior inferior angle of the parietal bone.

Next was removed from the lower region a fragment about one and one-fourth inch in length antero-posteriorly and about one-half an inch in width, thought to be parts of squamous portion of temporal and great wing of sphenoid, as a suture was found about midway.

Lastly there was removed from the anterior superior region a piece about the size of a dime. This was depressed so much that it rested almost vertically with regard to the brain, and on raising it the deeper edge was found to rest in the fissure of Sylvius, where it had lacerated the dura mater just posterior to the floor of the fissure. This was the only point at which the dura mater was torn, and as far as could be ascertained the brain substance was not injured.

All small spicular fragments were carefully removed, and all sharp corners gnawed off with bone forceps. A considerable portion of frontal and parietal bones at upper border were fractured fore and aft, the lower border depressed and upper border still attached. This lower border was raised with elevator and remained in position.

The wound was then thoroughly cleansed with carbolized water, all hemorrhage stopped, a drainage-tube inserted with the deeper end resting in the fissure of Sylvius and the other end projecting posteriorly, the tube resting on the dura mater for two inches, after which the edges were brought into apposition with silk sutures, and wound dressed with compress and bandage. Patient had vomited several times before ether was given.

Patient was put to bed and ice-cap applied from the start. Nausea and projectile vomiting on recovering from ether. Soon became conscious of everything.

September 4th.—A.M.: Pulse, 58, full, soft, and irregular; respiration, 12, shallow, with an occasional deep sighing inspiration; temperature, 99.6°; slight nausea during night. Retention of urine made the use of the catheter necessary. Rested fairly during night. Complains of pain in wound; has taken ℥ j. of milk and ʒ j. of brandy. P.M.: Symptoms substantially the same. Vomited twice. Restless. Gave ♏ x. morphia hypodermically. Pupils respond to light. Mind rational. Urine drawn.

September 5th.—A.M.: Pulse, 50, unchanged in character; respiration, 18, and unchanged; temperature, 99.4°. Mind clear. Less pain in head. No nausea. Pupils mobile. Urine drawn. Considerable swelling of soft parts about wound. P.M.: Pulse, 50, full, soft, and irregular, three or four pulsations occurring at times in quick succession. Respiration, 20, regular, not sighing as this A.M., and fuller. Temperature, 101°. Pupils respond. Urine drawn. Dull aching in head. At 2, 4, and 5 P.M., drank ℥ ss. of milk, followed by no discomfort. At 5.30 P.M. gave gr. xx. potass. bromid. and gr. xv. of chloral. Pain in head continued. At 6.30 gave gtt. xv. Magendie's sol. hypodermically.

September 6th.—A.M.: Pulse, 42, of same nature; respiration, 15, same; temperature, 98.5°. Slept well during night. Mind clear. Pupils respond. Retains food; took ℥ ss. of milk at times during night, appetite good. Carbolized water passed through drainage-tube with syringe and 3 ss. pus washed out. Sutures removed from lower part of wound. P.M.: Pulse, 50; respiration, 12; temperature, 101.4°. Slept six hours during day. Took ℥ ix. of milk and ℥ ijss. of beef-tea by mouth. No nausea. Little pain in head. Pupils respond to light. Mind clear. Small amount of pus discharged from tube. Still considerable swelling extending around eye.

September 7th.—A.M.: Pulse, 45, full, soft, and regular; respiration, 16, deep and regular; temperature, 98.5°. Less feeling of pressure about wound. Syringed out wound and found less discharge. Dressed with $\frac{1}{40}$ solution of carbolic acid. No nausea; appetite good; pulse, 52 after dressing wound. P.M.: Pulse, 48; respiration, 15; temperature, 101°. Gave gr. xx. of bromide and gr. xv. of chloral at 5.30. Took ℥ x. of milk, ℥ ivss. beef-tea, and ℥ jss. of chicken-broth during day. A bit of milk-toast and glass of iced tea. Slept six hours. Complains of pain in head and spinal column.

September 8th.—A.M.: Wound united by first intention, except a small portion about one inch above outer angle of eye and a portion posteriorly where drainage-tube enters. Complains of dull pain in head. Slept thirteen hours out of past twenty-four. Pulse, 50; respiration, 10; temperature, 98.5°. Took ℥ viij. milk, ℥ iv. chicken-broth and ice-cream. Voided urine for first time voluntarily. Wound washed through tube and bathed frequently during day with carbolic solution. Ice-cap on head from start. P.M.: Pulse, 50; respiration, 14; temperature, 100.5°. Other symptoms same. Urine voided voluntarily. Pupils normal. Doing well in every respect.

September 9th.—A.M.: Pulse, 46; respiration, 17; temperature, 99.2°. Pulse and respiration regular. Passed a quiet night. Gave two triplex pills. Takes food well. Slept eleven hours in past twenty-four. P.M.: Pulse, 44; respiration, 14; temperature, 100.2°. Bowels acted freely during afternoon. Pupils normal. Symptoms about same. Wound dressed in same way daily, always passing carbolized water through drainage-tube. Wound healing well and discharge diminishing. Patient restless, and gave ♏ xij. of Magendie's solution hypodermically.

September 10th.—A.M.: Temperature, 99.5°; pulse, 44; respiration, 14. Symptoms same. Doing well. Wound dressed as before. P.M.: Has taken food well all day. Wound cleansed and small amount of pus tinged with blood washed out. Pupils normal. Temperature, 100.5°; respiration, 14; pulse, 46. Coil still on head. Gave ♏ xij. of Magendie's solution hypodermically.

September 11th.—A.M.: Pulse, 46; respiration, 14; temperature, 99°. Symptoms same as yesterday. Doing well in every respect. P.M.: Pulse, 50; respiration, 12; temperature, 100°. Pupils normal. No morphia given to-night. Took to-day Oj. milk, ℥ iij. beef-tea, ℥ ij. broth, one raw tomato, one cracker, and a small dish of ice-cream. Slept thirteen hours out of the past twenty-four. Urine voided without difficulty; bowels moved freely.

September 12th—A.M.: Passed the first comfortable night without morphia, and this morning feels much better than at any time since accident. Headache almost gone, and seems cheerful.

From this time forward convalescence was almost uninterrupted. Was taken down-stairs at end of four weeks, but remained in bed until end of seven weeks. Got up and walked about at end of seventh week, and went out of house at end of eighth week. For first ten days after getting out felt very light-headed, and could not walk alone.

December 1st.—Commenced to work, making about three-fourths time, and continued to work for ten days.

December 13th.—I examined wound and found a small point at upper part which had not healed, and through which a small spicula of bone protruded. I attempted to remove this, but failed on account of its firm attachment at the opposite end. This was followed on the same day by swelling of this whole side of the head, with more or less bulging at seat of injury. At 4 A.M. next day a spontaneous opening took place at wound, with discharge of about ʒ j. of pus. Discharge continued about one week, confining him to house. Since then has at different times discharged small spiculæ of bone, six or seven in all.

Patient feels well, except slight dizziness occasionally, and works every day. Wound healed except a small point where last piece of bone escaped. Head has always been clear.

Careful examination of the fragments of bone removed demonstrates the fracture to have taken place at the point of union of the frontal, parietal, temporal, and sphenoid bones, a portion of each of these several bones having been removed.

When he first resumed work was much annoyed by the noise in the factory, which caused pain, dizziness, and throbbing in the head, but finds himself from day to day suffering less inconvenience from this source.

A peculiarity of this case was the persistently slow pulse, ranging from 40 to 56 per minute for first two weeks. During the third week the pulse gradually increased to 70 per minute, and has been normal since.

The drainage-tube was gradually withdrawn from day to day, and entirely removed on the fourteenth day.

CASE III.—Patrick S——, aged nine years. October 1, 1883, while shaking walnuts from a tree patient fell from a limb about twenty feet above the ground, striking his head upon a large rock embedded in the earth beneath. He was unconscious for a few moments, but soon recovered and walked to a house about one hundred yards from the tree. He then rode home, a distance of two miles, where he was seen by me about two hours after the fall.

On examination it was found that a semicircular nodule on the face of the rock had penetrated the left parietal bone near the posterior superior angle, making, as it were, a bony flap or valve hinged on the sagittal suture where the bone was even with the opposite parietal, but depressed externally so that the outer table of the depressed portion was on a level with, or below, the inner table of the surrounding bone.

Patient being perfectly conscious and there being no unfavorable symptoms, I merely sponged the wound carefully with carbolized water till thoroughly cleansed, laid a drainage-tube in the cut, and stitched the scalp over it. Ordered the wound syringed with carbolized water every two hours, ice-bag to head, aconite and bromide to control fever and restlessness, and enjoined absolute quiet.

Patient did not sleep well the first night, and had some vomiting the next morning after taking too much milk. With these exceptions made an uninterrupted and speedy recovery. Was in bed two weeks, clear-headed and comfortable all the time. The syringing was continued thrice daily during the time of discharge, and after the fourth or fifth day the dressing was completed by the application of balsam of Peru to the wound. At the third week he was playing in the kitchen. Seven weeks after the accident patient walked to the office—one mile—saying that the discharge had commenced again. On examination I found a sequestrum, which on removal I found to be about one inch long, one-fourth inch wide, and one-eighth inch thick, which I removed.

December 22d.—Has been going to school for past two weeks. Has no head symptoms and is perfectly well.

I was led to adopt this conservative course of treatment on account of the youth of the patient, and his greater liability to spontaneous recovery than the adult.

FEBRILE LASSITUDE. — Under this title (*courbature fébrile*) Dr. C. Eloy describes the condition characterized by a moderate degree of pyrexia, some gastric disturbance, and extreme lassitude, with a bruised feeling in the muscles. There is almost constant headache with pains in the legs and lumbar region. The fever is moderate, seldom more than two or three degrees above the normal, and usually presents an evening exacerbation. The digestive disturbances are slight. The abdomen is soft and painless, and without any eruption. Constipation is the rule. The fever subsides in three or four days, but the headache and anorexia remain for a few days longer. The cause of this condition is found in excessive fatigue following prolonged muscular exertion. It also results from exposure to extreme cold or heat. Violent emotion or a severe mental shock may cause similar phenomena. It is due to disturbances in trophic innervation, and occurs with greatest frequency at the two extremes of life, when the nutritive processes are either very active or very sluggish. It may at the outset be mistaken for a commencing typhoid fever, but a short time suffices to clear up the diagnosis. It may be distinguished from a bilious attack by the condition of the tongue, which in the latter is heavily coated, while in *courbature* it is usually clean. The treatment consists in rest and the exhibition of quinine in small repeated doses. The feeling of extreme weakness is best relieved by coca or alcohol in some form.—*L'Union Médicale*, May 24, 1884.

Reports of Hospitals.

ST. MICHAEL'S HOSPITAL, NEWARK, N. J.

A CASE OF CANCER OF THE PANCREAS AND OMENTUM.

(Reported by CHARLES D. BENNETT, M.D., House Physician.)

MINA K——, aged forty years, married, born in Germany, was admitted to St. Michael's Hospital on January 14, 1884. Patient dated the commencement of her illness eight weeks ago. At that time, while engaged in housework and lifting a heavy tub of water, she was seized with a sudden and severe lancinating pain in the abdomen, having its origin a little above and to the right of the umbilicus, radiating downward toward the bladder. This pain continued and was so severe that she became faint, vomited, and was compelled to lie down. A physician being summoned, a hasty diagnosis of renal colic was made, morphine administered hypodermically, and the pain relieved but not entirely removed. The pain continuing for several days, another physician was called, who finding now no lancinating pain, and only a dull, steady aching across the lumbar region, diagnosed lumbago, ascribed the foregoing symptoms to hysteria, and applied a blister to the left of the spinal column. Her pain now became less severe, and for two or three weeks, although never without pain, she felt much better and able to work, but soon her sufferings increased and finally she entered the hospital in the service of Dr. J. T. Wrightson. Until her present illness began she had been very healthy, save for a slight attack of acute Bright's disease seven years ago and for occasional mild attacks of dyspepsia.

On admission patient was well nourished, rather corpulent, and of good color. She complained of severe pain all over her abdomen, most intense about three inches above the umbilicus and a little to the left of the median line and extending around the abdomen nearly to the spine. This pain was steady, not at all colicky, of a dull character and accompanied with considerable tenderness, also more marked in the left hypochondriac region. This tenderness was so great that no examination by palpation could be endured. Patient's bowels were and had been rather constipated. There was no nausea or vomiting, no tympanites, nor had there been any serious disturbance of the digestive tract, although close questioning revealed that she had suffered slightly from dyspepsia with occasional vomiting for about a year, a statement which, in the light of subsequent developments, became of considerable importance. Pulse was 128, temperature 101¼°, P.M. She was given sufficient morphine to quiet the pain and hot fomentations applied over the abdomen.

The next day, although her pulse continued at 120 and temperature 102° A.M., and 102½° P.M., she felt much easier. Her abdomen was much less tender, and on closer examination at the point of greatest tenderness could be felt a hard mass, smooth, of irregular outline, deeply attached in the abdominal cavity, immovable, and yielding on percussion a dull note, into which a tympanitic element entered, as if a coil of intestines lay over the mass.

The area of dulness was ill-defined, but extended farthest in a transverse direction toward the liver, but it was doubtful as to whether it joined the dull area over that gland. It appeared to correspond pretty closely with the transverse colon, and one or two of the consultants believed the mass could be indented and ventured a diagnosis of impacted fæces.

Acting on this opinion a cathartic was given, causing several very profuse stools and yielding some relief. Still the mass persisted much the same, while the pain and tenderness steadily decreased for several days, during which active purgation was continued, bringing away copious stools. But the fever and the rapid pulse continued and the patient showed signs of emaciation.

The fingers, pressed firmly on the mass, detected a tremendous pulsation, evidently transmitted from the aorta. This seemed to be simply an upward impulse, and no lateral expansion could be perceived. Stronger pressure with the palm of the hand stopped the beat in both femoral arteries. Nothing could be heard by auscultation. The urine has been normal in quality, but in quantity, since the initial attack of pain, rather deficient.

A few days later the tumor was aspirated, and about four ounces of a light, reddish-brown, opaline, serous fluid, of specific gravity 1.020, and which turned nearly solid with nitric acid, were withdrawn.

Under the microscope this fluid presented no distinguishing characteristics. It contained great quantities of epithelium in an advanced stage of fatty degeneration (the "compound granular cells" of Beale), many leucocytes, a little blood, and a few pavement epithelial cells not yet fatty—in short, such a fluid as might be drawn from any benign cystic growth.

Vaginal examination revealed a profuse leucorrhœal discharge, the uterus slightly enlarged and firmly fixed, and surrounded on all sides by hard masses, evidently the exudation of pelvic peritonitis.

Patient continued in much the same condition for several days, but was evidently failing under her disease. Her daily temperature varied from 101° A.M. to 102° P.M., and her pulse beat steadily at about 120. Emaciation had made rapid strides. She was much weaker, her fever continued, and she was losing her memory and becoming apathetic. The dulness deepened into coma, and after lying for two days in that condition she died, twenty-four days after admission.

At the autopsy, held twenty-four hours after death, no pathological phenomena were found in the chest, save numerous pleuritic adhesions on the right side, moderately firm. On opening the abdomen no evidences of general peritonitis were seen and no distention of intestines, but considerable ascitic fluid, and low down in the pelvis, surrounding and fixing the uterus, were large masses of the exudation characteristic of pelvic peritonitis. In the great omentum were found masses of scirrhous cancer, increasing in amount toward its gastric extremity and involving and binding together in one mass the stomach, pancreas, omentum, the glands of the mesentery and those at the portal fissure of the liver, and surrounding but not seriously constricting the transverse colon. The mucous coat of the stomach was not yet diseased, and the pylorus was only slightly constricted.

The intestines were apparently not affected, and at no point was there any marked obstruction to the onward passage of their contents. The pancreas presented scirrhous disease throughout its whole extent, and was apparently the organ in which the process originated. The gall-bladder was very small and filled with dark, thick bile. Its duct ran through the cancerous mass and must have been constricted, but the bladder was not at all enlarged. The right kidney was slightly enlarged and showed considerable fatty degeneration. Where the right ureter dipped into the pelvis a broad band of inflammation tissue ran across and compressed it, so that the pelvis of that kidney was considerably dilated, containing about two ounces of urine. In one of the calices of this kidney was found a calcareous (phosphatic) mass, perhaps one-third of an inch in diameter. The other organs were normal.

Remarks.—Was this a case of primary cancer of the pancreas, or was it omental, involving the pancreas secondarily?

Jenner, quoted in Reynolds' "System of Medicine," vol. iii., p. 423, writes: "No symptoms are pathognomonic of pancreatic disease; an assemblage of symptoms indicates the probability of its lesion." But all authorities agree that pancreatic disease causes obscure digestive symptoms. Now for a year this woman had had slight trouble with, as she supposed, her stomach, yet the symptoms of local trouble in the stomach were very few, and the presence or absence of food seemed to make little difference as to the pain. Moreover, the autopsy showed the gastric mucous membrane to be healthy and the peritoneal coat only slightly involved, and that near the pyloric extremity, as if the disease were attacking it by extension. Then the eleven months of slight vomiting and dyspeptic pain, followed by the ten weeks of severe pain with fever, might well be explained by the theory of primary cancer of the pancreas suddenly taking an active growth and attacking the peritoneum and adjacent organs.

Again, Waldeyer's theorem, that true carcinoma invariably originates from epithelium, as distinguished from endothelium, has never been disproved, but is rather gaining ground. If it is true, the probability of the disease in this case originating in the pancreas is great, for in no other portion of the infected tissue can true epithelial cells be found save in the pancreas.

In no portion of the cancerous mass could any signs of degeneration be distinguished by which the comparative age of different parts could be estimated. So with the negative evidence of the autopsy and the meagre history of the case prior to the severe stage it seems impossible to locate the origin of the disease positively, but there is at least a strong probability that it was pancreatic.

The case well illustrates the difficulties which occasionally arise in the examination of abdominal tumors. The diagnosis here was not made before death. Her history pointed rather to an acute trouble, as the only chronic affection, the dyspepsia, had been so little noticed by her that even though she was of rather more than ordinary intelligence and anxious to tell all she knew about herself, she said nothing about any stomach trouble until closely questioned, and even then was disposed to consider it of no significance.

Again, her healthy appearance and the utter absence of cachexia seemed to exclude any chronic disease, especially one known to induce emaciation and loss of strength. Our patient was beginning to show the ravages of her disease before she died, but so little progress had emaciation made that at the autopsy the fat on the abdomen was nearly two inches thick and the mesentery correspondingly heavily loaded.

The mode of onset of her serious symptoms apparently indicated some grave obstructive troubles, such as the passage of a renal or gall-stone or the internal strangulation of intestine. The latter opinion, at first seriously considered, was gradually abandoned as the case wore on, but the former rather gained than lost in favor.

A theory strongly maintained until the autopsy showed its falsity was that the first attack of pain was due to the impaction of a renal calculus in the ureter; that thus was caused obstruction to the flow of urine and subsequent dilatation of the renal pelvis, running on to hydronephrosis. The aspiration only strengthened this view, and although the autopsy showed that no hydronephrosis existed, it is still a matter of doubt whether or no the first attack was due to the passage of a renal calculus.

No search for the stone had been made in the voided urine, and the concretion found in the right kidney showed that some deposit of urinary salts had certainly occurred.

The compression of the right ureter by the inflammatory band was not sufficient to account for the painful symptoms, nor could the dilatation of the renal pelvis produce them.

The cause of the pelvic peritonitis was not manifest. The inflammation was strictly confined to the pelvis, and the peritoneum elsewhere, except where distinctly cancerous, was apparently perfectly healthy.

Looking back over the case, it is hard to see how a positive diagnosis could have been made. None of her symptoms warranted the anti-mortem diagnosis of pancreatic disease, and in fact the symptoms subsequent to her first attack, ten weeks before death, were such as might be explained by almost any abdominal tumor complicated with peritonitis.

Progress of Medical Science.

PROPHYLAXIS OF RABIES.—Professor Sperino finds an analogy in the pathogenesis of syphilis and rabies in the following facts: 1, there is in each of these diseases a long period of incubation after the introduction of the virus; and 2, in many cases in rabies, as in syphilis, there is induration around the point of introduction of the poison, and in a few days an adenopathy arises in the lymphatic glands situated above the infecting part. Attracted by these resemblances, and by others of minor importance, the author tried the effects of mercury in eleven individuals bitten by mad dogs. The cases were seen from three to twelve days after having been bitten. Mercurial frictions were made to the affected limbs until the adenopathy had completely disappeared. None of the persons so treated was attacked with hydrophobia. Though no positive deductions could be made from so small a number of experiments, yet the favorable results obtained in these eleven cases would suggest the utility of further trials of Sperino's method.—*Giornale Italiano delle Malattie Veneree e della Pelle*, April, 1884.

CHLOROFORMIC PURPURA.—Dr. Morel-Lavallée has observed an eruption of purpuric spots occurring within a minute or two after the administration of chloroform was begun. The maculæ were small, about one-seventh of an inch in diameter, and a few were raised up in the form of sanguineous blebs. The eruption occupied chiefly the anterior portion of the thorax, and was absent from the under part of the body. The author did not regard the eruption as due to the action of the chloroform, but thought it resembled rather the purpura, described by Vidal and Fournier, caused by violent emotion.—*Giornale Italiano delle Malattie Veneree e della Pelle*, March, April, 1884.

HYSTERIA IN THE MALE.—At a recent meeting of the Hospital Society of Paris, Dr. Débove related the case of a man who had an attack of what resembled apoplexy followed by hemiplegia, while at the same time there were contractures of the affected muscles. These attacks were cured and recurred three times in as many years. In other similar cases the author had obtained excellent results with the magnet, and he proposed to employ the same treatment in this case. He expressed the opinion that hysteria is a much more common condition in man than is generally supposed.—*Journal de Médecine et de Chirurgie Pratiques*, May, 1884.

AMBLYOPIA FROM TOBACCO.—The distinguishing characters of this form of amblyopia, according to Dr. Masselon, are as follows: 1. Reduced vision in varying degree, appearing gradually or suddenly, affecting both eyes; but of unequal intensity on the two sides. There is the appearance of a veil before the eyes, or of a cloud in which the patient seems at times to see snow-flakes falling. The sight improves somewhat after sunset. 2. Central scotoma for colors. This is a sign always present, and one of special diagnostic importance in those cases in which the ophthalmoscope reveals no lesion. The following is the author's mode of testing the color sense. A card is pierced with a hole four or five lines in diameter, and at the distance of three lines from the hole a dot is marked on the card. One eye being closed, the patient looks attentively with the other at the hole in the card behind which other colored cards are passed. It is found that blue is the only color recognized without hesitation; green is taken for a light gray, and red for a dark gray or black. If the patient now looks at the point beside the hole, and not at the hole itself, he distinguishes the three colors without difficulty. Thus in amblyopia from tobacco there is central scotoma for green and red, but not for blue. In some cases of long standing the green cannot be determined in the second test. This is because the scotoma for this color has increased to such an extent as to cover the entire visual field. Patients thus affected complain often of their inability to distinguish gold from silver coin. 3. Finally there is a modification of the field of vision in the perception of white. This is not ordinarily noticed, but a careful examination will reveal the fact that the greater part of the upper half of the visual field is the seat of a scotoma of varying intensity, but of equal extent in the two eyes. According to the author this symptom is pathognomonic.—*Gazette Médicale de l'Algérie*, May 15, 1884.

DEATH FROM HEMORRHAGE AFTER TRACHEOTOMY.—The Paris correspondent of the *British Medical Journal* of May 24, 1884, writes that M. d'Heilly, at a recent meeting of the Société Médicale des Hôpitaux, showed some pathological specimens removed from a child which had died after tracheotomy for diphtheria. The canula had been kept permanently in position only a short time, and for some days before death occurred it was removed during several hours in the day. Toward the twelfth day violent hemorrhage occurred, both tracheal and buccal, and death quickly followed. At the necropsy it was found that the anterior wall of the trachea was ulcerated, and that the ulceration extended to the innominate artery. The seat of the ulceration corresponded to the position of the canula. M. d'Heilly therefore concluded that the rubbing of the sharp edge of the canula against the wall of the trachea caused the ulceration. Two similar cases have been previously recorded.

TRAUMATICINE.—This is the name given by Dr. Schivardi (*Gazzetta degli Ospedali*) to a solution of one part of guttapercha in ten of chloroform. When applied by means of a brush to the skin it forms a firm and durable pellicle. It may be used pure in place of collodion, or as a vehicle for the application of various medicaments to the skin. It is an excellent excipient for chrysarobin or for pyrogallic or salicylic acids. The application is unirritating.

KAIRIN IN PHTHISIS.—Dr. Sorgius states that he has used kairin with good effect in reducing the pyrexia in pulmonary phthisis, and has never observed any unpleasant action of the drug. It exerts no influence, however, upon the local morbid process, and as its exhibition demands considerable watchfulness on the part of the physician, it is suitable only for use in hospital practice.—*Wiener Medicinische Wochenschrift*, April 26, 1884.

HEMORRHAGE FOLLOWING SCARIFICATION OF THE CERVIX.—Dr. A. Muratoff relates a case in which he scarified the cervix uteri, making three incisions on either side of the external os. As the operation was well borne and seemed to answer the indications in the case, he repeated it a second and a third time. A short time after the last scarification the woman was seized with so severe a hemorrhage that it was found necessary to pass a suture through each of the incisions in order to control it. The author concludes from this experience that scarification of the cervix uteri is not so trivial an operation as is usually supposed, and he warns his readers not to lose sight of the patient until some hours have elapsed and it is certain that no more bleeding will occur.—*Deutsche Medicinal-Zeitung*, May 12, 1884.

TREATMENT OF INDOLENT SINUSES.—Dr. W. W. Hall recommends sponge-grafting to promote the healing of indolent sinuses (*Edinburgh Medical Journal*). He relates an instance in which he had used all the ordinary means without success. He then determined to try the effects of sponge-grafting. A long, narrow strip of sponge was prepared by soaking in nitro-muriatic acid, and then, after being carbolized, was passed down to the bottom of the sinus, completely filling the tract. An antiseptic dressing was then applied, and the sinus healed rapidly, leaving only an insignificant cicatrix.

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AN OCCASIONAL CAUSE OF FAILURE AFTER OPERATIONS.

No one but a blind skeptic can for a moment doubt that operative surgery has taken immense strides ahead in the past few years. The discovery of anæsthesia, the prevention of hemorrhage during an operation, and the general adoption of antiseptic precautions in one form or another, not to speak of increased skill in operating, in which respect we are perhaps not so greatly superior to our fathers, have all contributed to better the chances of the patient as well as to encourage the boldness of the surgeon. It is but a truism to say that operations are now undertaken and successfully terminated which a few years ago it would have been deemed madness to attempt. Nevertheless, the success even of the best operators is not uniform. It sometimes happens that a case in which everything seems to conspire to render a favorable result certain, and where every precaution has been taken to avert disaster, terminates unsuccessfully. Now, it is eminently unscientific to attribute these failures to chance or poor luck, and such cases ought to be most carefully studied, in order, if possible, to determine the reason of the evil termination, so that the same error may be avoided in the future. In an article on this subject (*Schmidt's Jahrbücher*, No. 10, 1883), Dr. D. Domec calls attention to one frequent cause of failure in surgical operations, or of evil results following apparently insignificant injuries. This resides in some constitutional fault or diathesis hitherto latent, and only called into action by the traumatism. He does not, of course, refer to evident cachexiæ which every surgeon recognizes and dreads, but to latent dyscrasiæ, often inherited, which may have previously given no sign of their existence, and which might never have declared themselves were it not for the traumatism inflicted either by accident or by the knife of the surgeon. The recent French literature contains numerous illustrations of untoward results following operation, or injury, directly chargeable to one or other of these unrecognized constitutional taints, where, had the conditions been previously understood, preventive measures might have been adopted in time and the evil averted. We have learned how to fight and to overcome the enemies from without, but are only too apt to forget that a more insidious foe may lurk within, whose evil work may be accomplished even before we are aware that he is present.

THE DANGERS OF THE LOOKING-GLASS.

IT would seem as if the catalogue of perils to which we are exposed while peacefully resting in our boudoirs, or sleeping the sleep of the just in our bedchambers, is never to be complete. Every few days we are startled by the discovery of some unsuspected source of evil, and learn with alarm that our feeling of security was baseless, and that the enemy was working destruction under the guise of a friend. The wall-paper, the carpets, the upholstery, the furnace, the fresh-air flue, and the area drain have all had their evil actions brought to light, and now the aged mirror, which seemed to be an angel of light, is shown to have worked deeds of darkness. Dr. Neukirch (*Centralblatt für Klinische Medicin*, March 15, 1884) reports having met with several cases of chronic mercurial poisoning, manifested by severe stomatitis with pains in the lower jaw, swelling of the submaxillary glands, ptyalism, and a fetid breath. The presence of mercury in considerable quantity was also detected in the urine. In two cases, of a man and his wife, the cause of the trouble was in a looking-glass hanging in the bed-room, the wooden back of which was dotted with thousands of minute globules of mercury. The apartment was heated during the night. In another instance the source of the poisoning was a mirror, forty years old, whose back had become weak and from whose face the quicksilvery freshness was fading. The aged culprits having been summarily removed, their victims speedily recovered. Thus has yet another of our trusted friends been proved false! And now we must either destroy our mirrors while they are yet young and innocent, or else keep a watchful eye on them and brace up their backs the moment the signs of decrepitude become apparent. If worse comes to worst, we can at least take refuge in the burnished steel of our forefathers.

IMPORTANT TO VACCINATORS.

THE Local Government Board of England has at last published the official records of Dr. Cory's experiments in vaccinating himself with lymph from the arms of syphilitic children. After three experiments which were failures, Dr. Cory finally succeeded in inoculating himself with syphilis, using the *pure lymph without any blood*. His experiments conclusively prove, in the opinion of a committee appointed to examine them, and composed of Dr. Bristowe, Dr. Humphrey, Dr. Ballard, and Mr. Hutchinson, "that it is possible for syphilis to be communicated in vaccination from a vaccine-vesicle on a syphilitic person notwithstanding that the operation be performed with the utmost care to avoid the admixture of blood."

The results of Dr. Cory's experiment are important, and should be widely known. No doubt the anti-vaccinators will take pains to diffuse information concerning them.

The *British Medical Journal* attempts, wrongly, to belittle the facts elucidated by Dr. Cory. It states that the lymph was taken from a child in the active stage of syphilis with cutaneous lesions; that no careful physician would ever use lymph from such a child, and that in practice, by the observance of recognized rules, there can be no danger of transferring syphilis. All this is probably true, but no one can deny that if the lymph of a

syphilitic is a bearer of contagion at one time, it may be at another, and that the absence of cutaneous lesions does not with absolute certainty show that the lymph is harmless.

The lesson from Dr. Cory's experiments is that vaccination should be done with increased care, and that bovine lymph should be used when any of good quality can be obtained.

THE COPENHAGEN CONGRESS.

We have received a copy of the official programme of the Eighth International Congress, to be held at Copenhagen, August 10 to 16, 1884.

A glance at its contents shows that the profession may expect the meeting to be one of real scientific importance and interest. The papers promised are not nearly so numerous as at the last session, but we observe with pleasure that many of the leading and representative physicians of Europe are to be present and contribute to the work. In the general meetings, addresses are to be delivered by Virchow, Pasteur, Sir William Gull, Crudeli, Verneuil, and Panum, every country being represented except Austria and America.

The Sections on Anatomy and Physiology are particularly promising, thirty-seven papers being announced. Among the readers we observe the familiar names of Bizzozero, Ranvier, Merkel, Meyer, His, Kölliker, Hammarsten, Malassez, Heidenhain, Munk, Marey, and Burdon-Sanderson.

In the Section on Pathology, Koch, Cornil, Gull, Friedländer, and others, will read papers.

In the Section on Medicine, papers will be read by Jürgensen, Liebermeister, Bouchard, Ewald, Leube, Austin Flint, and others.

Surgery is to be represented by such men as Esmarch, Lister, Schede, Bert, Gussenbauer, Ferrier, and Lucas-Championnière; Obstetrics by Lawson Tait, Schröder, Simpson, Mikulicz, Hegar, and others. In the ten other Sections equally prominent names might be cited.

The official languages of the Congress are German, French, and English. It is worthy of note, as showing the broadness and cosmopolitan character of medical science, that the language of the city and country in which the Congress is held is not to be used.

THE ANALYSIS OF CUCUMBERS.

Dr. Waller's report to the Health Department on the analysis of cucumbers, which he found contained the equivalent of 2.515 grm. of copper sulphate per pound, added for the purpose of imparting a bright green color, reminds us of the conflicting testimony given by high authorities in the English courts in 1877, on the occasion of the trial of some dealers who had been arrested for selling peas colored in like manner.

The amount of metal found in the peas corresponded to from 2 to 2½ grm. of copper sulphate per pound.

Dr. Pavy testified that in his opinion this amount was harmless. Pereira was quoted as saying that 6 grm. of copper (sulphate?) could be repeatedly administered without injury to health. On the other hand, Drs. Tidy, Dupré, and Piesse all expressed a belief that the proportions of copper found were injurious.

Dr. C. Evans said that the amounts might be injurious to some and not to others. He also asserted that 20.4 per cent. of cases of accidental poisoning in France were due to the use of copper culinary utensils.

Dr. Guy testified that poisoning had occurred from small amounts of copper; that repeated small amounts were more dangerous than large, as the larger quantities would have an emetic effect.

The decisions in these cases were against the venders.

The discussion, however, was taken up by the Society of Public Analysts. In a paper read before this Society, Messrs. Paul and Kingzett (*Analyst*, vol. ii., p. 98) reported that they had each taken daily doses of 0.3 grm. of copper sulphate without ill effects. The urine contained no copper after this, but considerable amounts were found in the fæces. Dr. Rowe cited cases where water containing copper, in one instance to the extent of 16 grm. per imperial gallon, was taken without producing ill effects on those drinking it. Dr. Thompson stated that he had exhibited 1 grm. daily to a dog for some time without apparent effect. Dr. Redwood asserted that he knew of cases of poisoning from canned peas, where each pound tin of the vegetable contained 2 grm. of copper.

Dr. Galippe (*Comptes Rend.*, vol. lxxxiv., p. 718) refers to results obtained by him in 1875, where he proved (to his own satisfaction at least) that large doses of copper sulphate produced vomiting, while small ones had no apparent effect.

Dr. Blythe comments as follows on these cases: "1, The whole question of the injurious action of coppered peas rests entirely on theory; 2, the theory of the poisonous action is based in no single case upon any observed instance of chronic or acute poisoning; 3, in no case has the *Analyst* been able to state the form in which the copper exists." He characterizes it as an adulterative, but is unwilling to assert that it is an injurious adulterant.

We believe that the addition of copper compounds to articles of food is dangerous, and should be prohibited, and we are glad to see that the Health Board takes the same view of the question.

News of the Week.

The Long and Short of the Milk Treatment.—The last issue of the *Journal of the American Medical Association* devotes eight columns to an article on "Milk Treatment of Disease." The London *Medical Press and Circular*, May 11, 1870, gives the same information in eight lines.

Dr. George B. Fowler has been elected Professor of Physiological Chemistry in the New York Polyclinic.

The Governor has Vetoed an appropriation of $25,000, for enlarging the homœopathic lunatic asylum at Middletown.

Another Discoverer of the Yellow Fever Germ.—Dr. L. Girerd, of the Panama Canal Company, has successfully cultivated the yellow fever germ, and has inoculated many animals. He is about to publish his observations.

THE INDEX MEDICUS.—The last issue of this valuable periodical states that, despite the death of the publisher, Mr. Leypoldt, it will be continued in its present form until the end of the year.

SUING A MEDICAL COLLEGE.—A suit has been begun in Atlanta, Ga., against the Eclectic Medical College of that city. It is charged that this institution has granted diplomas to persons who have not studied medicine two full years as required by the law of the State. The suit is for $15,000, one-half to go to the informer.

A PROVINCIAL MEDICAL JOURNAL.—The *Midland Medical Miscellany* has just published two editorials from THE RECORD in its own editorial columns without any acknowledgment. Our contemporary is undoubtedly doing the best thing possible to make its columns brilliant and attractive. But such methods are not considered honest over here. We beg our provincial contemporary to desist.

NEW PARKS FOR NEW YORK CITY.—The Governor has signed the bill providing for new parks for this city.

CHOLERA IN CATS.—Mr. John C. Lucas refers in the *Lancet* of May 24th to an epidemic of cholera in cats occurring at Ahmednugghur and Sirror, and reported upon by the Government of Bombay. He refers also to another epidemic which occurred at Delhi in 1875. It thus seems to be established that cholera can at times affect pigs and cats. Yet Koch failed to produce the disease in them with his bacilli or by other means.

DR. WILLIAM A. HAMMOND'S NOVEL, entitled "Lal," is announced by the Appletons to appear this month.

ERGOT AND GRASS.—Dr. S. C. Franks, of Bentonsport, Ia., writes that "in Iowa and also in Kansas and all Western States we have a wild rye growing with the grass, from which the cattle obtain the ergot."

DR. CHARLES J. KIPP, of Newark, N. J., writes: "In the report of the meeting of the Medical Society of New Jersey, I am made to say that in 24.3 per cent. of the cases of purulent ophthalmia of the new-born treated the cornea was damaged. What I said was that in 24.3 per cent. of the cases corneal disease was present when the cases came under my care. Furthermore, I did not say that corneal complications are most easily subdued by local depletion, etc., but that they require in addition to the other treatment instillations of atropine and eserine. With regard to the indications for the use of the nitrate of silver I said that they were a copious purulent discharge and swelling and succulence of the conjunctiva; but I did not say anything about shreds of nerve or less firmly adherent fibrin.

FREE HOME FOR DESTITUTE YOUNG GIRLS AT 23 EAST ELEVENTH STREET.—As probably few medical practitioners in this city know of the existence of such an institution, and as they often encounter just such cases of distress as this Home is intended to relieve, we are very glad to insert the following brief notice: "Destitute young girls under twenty-five years of age, of all religious denominations and of good character, received free of all charge for a month or more, and places found for them in the country. Matron, Mrs. V. M. Bokee; Officers, Mrs. J. W. Baker, Mrs. H. K. Thurber, Mrs. Henry W. Johnson, Mrs. John H. Mortimer."

ANALYSIS OF PICKLED CUCUMBERS.—Dr. Elwynn Waller, chemist of the Health Department, in his report to the sanitary authorities on the analyses of pickled cucumbers colored artificially with copper, lays stress on two facts noted by him. 1. The cucumbers contained a much larger proportion of copper than the vinegar in which they were immersed. 2. Cucumbers in the same lot contained widely different amounts of copper.

The first fact refutes the assertion on the part of the manufacturer, that soaking the pickles in water or vinegar removes the copper, and also shows that the vegetables have a certain amount of affinity for the metal.

The second fact demonstrates that the method of coloring—immersing a plate of copper in a vat containing cucumbers and vinegar—causes the cucumbers nearest the copper to absorb more of the poison than those situated a little distance off.

The doctor has found copper in all cereals and vegetables grown in soil containing it. Consequently he states that "the question of fraudulent addition of cupric salts to articles of food turns not on the mere presence of copper, but on the proportion present." More than ten parts per million, according to Dr. Dupré, indicates artificial or accidental contamination.

Reports of Societies.

AMERICAN NEUROLOGICAL ASSOCIATION.

Tenth Annual Meeting, held in New York, June 18, 19, and 20, 1884.

WEDNESDAY, JUNE 18TH—FIRST DAY—AFTERNOON SESSION.

The Association met in the hall of the New York Academy of Medicine, and in the absence of the President, DR. ROBERT T. EDES, of Boston, was called to order by DR. W. J. MORTON, of New York, Vice-President, who made a few appropriate remarks on the progress which had been made in neurology, and then introduced the President-elect, DR. ISAAC OTT, of Easton, Pa.

THE PRESIDENT'S ADDRESS.

Dr. Ott, after thanking the Association for the honor it had conferred upon him, delivered an address on "The Paths of the Various Fibres in the Spinal Cord." It is now about seventy years ago that Charles Bell announced that the anterior roots of the spinal cord were motor and the posterior sensory. During this period many thousands of experiments have been made upon the paths of conduction of motion and sensation in the spinal cord, with a gradual increase of knowledge. The physiology of the spinal cord as taught to-day is mainly due to perfections in technique; that is, the use of immovable protecting knives and the subsequent microscopic examination of the hardened cord, two points neglected by Professors Schiff and Brown-Séquard. Up to 1840 various opinions were held by different observers, when Longet arrived at the conclusion that the anterior columns were motor and the posterior sensory.

Brown-Séquard also made an extended series of experiments, and believed that the transmission of sensory impressions in the cord takes place chiefly through the gray matter and partly through the anterior columns; that the voluntary impressions in the upper part of the cervical portion were in the lateral columns and in the gray matter between them and the anterior columns; that no tactile sensations ascend the posterior columns to the brain. These views, it is fair to state, have been somewhat modified.

Professor Schiff's idea of the spinal cord is that the posterior columns conduct tactile impressions; that the gray matter conducts in all directions afferent impulses, which give rise to affections of general sensibility, and such afferent impulses as are paths of reflex action.

Dr. Ott then gave Schiff's theory of the spinal cord. He mentioned these views to show that the statements made were greatly in need of correction. According to Ludwig's experiments made on the lumbar cord of the rabbit, sensory and motor fibres run in the lateral columns. Dr. Ott had, in conjunction with Dr. R. R. Smith, proved that the same statement was true for the cervical segment of the spinal cord of the rabbit. By subsequent experiments on kittens he had proved that, in addition to the lateral columns, the anterior contained voluntary motor fibres.

Dr. Ott then gave a *résumé* of the experiments which had been made by Wordschiloff, Kusmin, and others, all of which went to show that the lateral columns were the principal conductors of sensation and motion; that the gray matter does not directly participate; that the anterior columns conduct voluntary motion.

As regards the posterior columns, Dr. Ott could substantiate Professor Schiff's assertion that after bleeding a rabbit and dividing the whole cord, except the posterior columns, impressions of touch were still conveyed. That tactile impressions also pass up the lateral columns is also true. He had not referred to the recent works of comparative anatomists, but in the main they were in accord with these views.

Dr. Ott also stated that decussation of fibres in the central nervous system was quite extensive; thus the motor, sensory, vaso-motor, sudorific, and inhibitory, the two latter running in the lateral columns, all cross over each other.

NOMINATIONS FOR MEMBERSHIP.

Drs. Sarah J. McNutt, J. Leonard Corning, and Geo. W. Jacoby, of New York, and Dr. G. Belton Massey, of Philadelphia, were nominated for membership.

Dr. S. F. Danills, privat-docent at the Imperial Academy of Medicine, St. Petersburg, Russia, was nominated by Dr. Morton for Associate Member.

ELECTION OF OFFICERS.

President—Dr. Burt G. Wilder, of Ithaca, N. Y.; *Vice-President*—Dr. Leonard Weber, of New York; *Secretary and Treasurer*—Dr. Græme M. Hammond, of New York; *Councillors*—Drs. W. R. Birdsall and W. J. Morton, of New York. The tellers were Drs. Bannister, of Chicago, Ill., and W. J. Morton, of New York.

The first scientific communication was by Dr. Burt G. Wilder, of Ithaca, N. Y., and consisted of an

EXHIBITION OF PREPARATIONS

illustrating (*a*) the existence and circumscription of the portæ (foramina monroi) in the adult human brain; (*b*) the presence of the crista fornicis in fœtal and newborn human brains; (*c*) two additional cases of absence of the callosum in the domestic cat; (*d*) the covering of the cerebellum by the cerebrum in a young chimpanzee whose brain was hardened within the skull.

Dr. Amidon, of New York, exhibited a specimen, loaned to him by Dr. Frank Ferguson, of New York, which showed absence of the corpus callosum in the adult human brain.

Remarks were made by Dr. E. C. Spitzka, of New York, and Dr. Wilder, after which the Association adjourned to meet at 8.30 o'clock.

First Day—Evening Session.

The Association was called to order by the President.

NEW MEMBERS.

After the reading of the minutes the Council reported favorably on the nomination of Drs. Sarah J. McNutt and George M. Jacoby, of New York, and Dr. G. Belton Massey, of Philadelphia, for active members.

The report was accepted and adopted, and the above candidates were elected by ballot.

THE "WILLIAM A. HAMMOND PRIZE."

The Secretary read the report of the Committee, Drs. F. T. Miles, of Baltimore, J. S. Jewell, of Chicago, and E. C. Seguin, of New York, on the Hammond Prize to be awarded to the author of the best essay on the "Functions of the Thalamus in Man." One essay had been submitted which was reviewed in the report, and received exceedingly high commendation, but to its author the committee declined to award the prize because the essay hardly filled the scope of the prize problem, because it treated the functions of the thalamus in a too restricted way, and because the material relating to human physiology of the part was too limited.

The report was accepted, and after considerable discussion, participated in by Drs. Wilder, of Ithaca; Spitzka, of New York; Webber, of Boston; Dana, Birdsall, and Rockwell, of New York, it was referred back to the Committee with the inquiry whether or not they took into consideration, in reaching their conclusion, the fact that no clause giving them power to reject all essays appeared in their circular, and that it would seem that their elaborate and laudatory comments would have justified a somewhat more favorable report.

Dr. E. C. Spitzka, of New York, gave notice of a proposed

AMENDMENT TO THE BY-LAWS,

adding a clause which will provide for an executive session in which the election of members, officers, etc., shall be held.

Dr. B. G. Wilder, of Ithaca, then read a paper on

MACROSCOPIC ENCEPHALIC NOMENCLATURE,

which he divided into descriptive and designatory. The object aimed at by the author of the paper was to get rid of the present heterogeneous encephalic names, and to employ, as far as possible, technical names which are brief and composed each of a single word. In other words he offered a *monomial* system, the advantages of which were (1) brevity, (2) flexibility, (3) adaptability, and (4) capacity for uniform classification.

The discussion on the paper was postponed until the afternoon session on Thursday.

Dr. A. D. Rockwell, of New York, then read a paper entitled

TONIC SPASM OF THE DIAPHRAGM (?),

in which he reported a case, still under observation, and unique in character. Mrs. X——, thirty-five years of age, the mother of four children, began to suffer from peculiar attacks twelve years ago. The patient is awakened from sleep by a vague feeling of pressure and distress about the lower end of the sternum, over the epigastrium, extending to the back—a feeling as if she was being crushed by a great weight. Respiration becomes short and gasping, chiefly with the upper part of the thorax; the pulse remains regular, although it becomes weak; the attacks last from twenty minutes to three-quarters of an hour, require anæsthetics to control them, and leave a sore feeling which remains for several days. There is no evidence of disease of the heart, or genito-urinary organs, has been no disturbance of deglutition, no change in the external appearance of the abdominal walls during the attacks, no evidence of the passage of gall-stones. He had excluded angina pectoris, and, although the case lacked some of the symptoms said to be usually present, Dr. Rockwell felt convinced that it was a case of spasm.

There had been a remarkable improvement in the general condition of the patient, and no attack had occurred since he began the use of the actual cautery along the spine, early in this year.

Dr. W. R. Birdsall, of New York, suggested the existence of hepatic calculi as a cause of the attacks.

Dr. C. L. Dana, of New York, thought it impossible for tonic spasm of the diaphragm to occur without change in the contour of the abdominal walls.

Dr. Rockwell said that that was a point on which he wished to obtain some light, and he had marked the title of his paper with an interrogation. While experimentation shows there is change in the appearance of the abdominal muscles when spasm of the diaphragm was produced, he was not prepared to say that slight spasm, in a very sensitive person, could not occur without perceptible change in the contour of the abdominal walls.

Dr. Spitzka remarked that the objection, that no change occurring in the abdominal walls excluded spasm of the diaphragm, could be overcome by the occurrence of compensatory change in the action of the respiratory muscles of the thorax.

The Association adjourned to meet at 2.30 P.M. on Thursday.

NEW HAMPSHIRE MEDICAL SOCIETY.

Ninety-fourth Annual Meeting, held at Concord, N. H., June 17 and 18, 1884.

(Special Report for The Medical Record.)

Tuesday, June 17th—First Day.

The meeting was called to order by the President, Dr. John W. Parsons, of Portsmouth.

Prayer was offered by Rev. E. R. Wilkins, of the Methodist Episcopal Church.

The Chairman of the Committee of Arrangements reported what had been done to secure reduced rates of transportation for members, and gave a programme of the social entertainments to which the Fellows and their guests were invited.

The "Proceedings" of the last annual meeting having been published and distributed to the Fellows, it was voted to dispense with the reading of the record.

The usual special committees were appointed by the Chair, after which the Secretary, Dr. Geo. P. Conn read the report of the Meeting of the Council, which was approved by the Society.

The report of the Council recommended for membership twenty-two new members, who were elected and took seats.

There were about one hundred and fifty members present.

The President, Dr. J. W. Parsons, after extending a hearty salutation to the Society discoursed at some length upon

THE IMPORTANCE AND WELFARE OF MEDICAL ASSOCIATIONS, ESPECIALLY THE NEW HAMPSHIRE MEDICAL SOCIETY.

He said that although much had already been accomplished the possibilities of the future far exceeded the realities of the past.

Medical associations have a portion of this future work to perform, and although they do not make discoveries, they stimulate the members to greater exertions and to a spirit of healthful rivalry, and divert their minds from routine into new and broader channels of thought and investigation.

The lack of association and want of mingling among the people of this country is nowhere more apparent or detrimental than in the medical profession. Familiarity may breed contempt, but fellowship and acquaintance will also engender respect, and a medical man's acquirements should not be considered complete until he has affiliated with some medical society.

Self-respect and true professional devotion are increased by these reunions. The attrition of honest, friendly criticism and fraternal intercourse quickens the intellect, polishes the manner, and arouses a degree of self-reliance.

He commended the activity of the few and deplored the indifference of the many for Society work and warmly urged the necessity of the willing participation of each member in elevating the work of the Society by earnest individual effort.

The time and money expended in attendance upon medical associations are well spent and profitably invested, and no medical man is so poor that he cannot afford to become a member of a society, or should be such a slave to his patrons that he cannot take time to attend its meetings.

It was enjoined upon the members that care should be taken that they do not receive into their offices or admit to their patronage young aspirants for the medical profession who cannot exhibit evidence of a proper preparatory education. The doors should be wide open to the educated, but carefully guarded against the entrance of the ignorant, even at the risk of occasionally excluding a brilliant mind.

The address was concluded by some criticisms upon the present registration law. The writer did not believe registration laws were for the sole purpose of ascertaining the number of births and deaths and cause of death, but that they should be a most valuable genealogical record.

Among the radical changes advised, the writer advocated that

PHYSICIANS SHOULD NOT BE THE MEDIUM THROUGH WHICH REGISTRATION RETURNS SHOULD BE MADE.

That in the case of deaths it should be done by the public authorities, and in the case of births by the parents.

Dr. C. P. Bancroft, Superintendent of the New Hampshire Asylum, read a paper entitled

AN INQUIRY INTO THE CAUSES OF INSANITY, WITH ESPECIAL REFERENCE TO PREVENTION AND TREATMENT.

Allusion was made to the marked progress in the scientific knowledge of insanity acquired during the last fifty years. The intimate relationship between insanity and general constitutional dyscrasiæ was shown. The alternation of mind disease and other diseases—such as chorea, epilepsy, phthisis, asthma, and rheumatism—in the same individual illustrate how intimately related are mental alienation and these constitutional diseases, a faulty diathesis leading at one time to insanity and at another time to some other disease. But a certain proportion of the prevailing insanity of the day was considered to be of acute character, and to arise in the majority of cases from an overtaxed nervous system and faulty habits of living.

About seventy-five per cent. of the insanity seen in the State Hospital is chronic in character and arises from general constitutional causes—in other words, from a general constitutional heredity. This class of mental disease is, as a rule, irrecoverable. The remaining twenty-five per cent. is acute in character and proceeds from causes developed by the individual, and not from a dyscrasia transmitted to him. This class of insanity is, as a rule, preventable and as recoverable as any form of acute disease under a proper treatment.

In the chronic types of insanity hereditary predisposition was considered to be the most prominent etiological factor. But especial emphasis was placed upon this point, viz., that insanity itself was not necessarily transmitted from parents to children, but some one of the allied constitutional diseases might appear in its stead. Disorders of malnutrition, such as phthisis, scrofula, syphilis, and the like, may not appear in the descendants in that particular form; they may lead to such an impairment of the great nerve-centres that chorea, or epilepsy, or insanity may appear in conjunction with, or in place of, lung disease or other constitutional affections.

The causes of the largest proportion of the chronic insanity seen in our hospitals are to be searched for in the innermost life of the individual, by means of

which a deteriorated cell-structure becomes established. This in its turn may, by the law of heredity, be transmitted to another generation. And so what appeared as intemperance, or phthisis, or epilepsy in the antecedents, may have so weakened and deteriorated the cerebral centres that in the descendants actual mental aberration obtains as a result of a deterioration of the organ of mind; and this retrograde change may have had its origin one, or even two or three generations back.

Undoubtedly the most satisfactory method for the prevention of this large proportion of chronic insanity would be the non-union of men and women in whom exist such dangerous factors as intemperance, phthisis, epilepsy, chorea, syphilis, and other depressory constitutional diseases. But in the present social status of the world this is impossible. The prevention of insanity was unfortunately narrowed down to the judicious treatment of predisposing conditions by one thoroughly versed in the constitutional tendencies of families.

Dr. J. G. Anthoine, of Antrim, next offered a paper on

AIDS IN OBSTETRICS.

Chloroform stood at the head of the list. Its advantages over ether are as follows: Its effect was almost immediate; it was not necessary to render the patient wholly unconscious; it did not produce the excitability that ether did, and when given in the following manner was just as safe: Fold a hankerchief, place it in the palm of the left hand, apply it to the bottle of chloroform and quickly invert it twice; grasp it to prevent evaporation and apply to the face of the patient as soon as the pain commences, and remove it when the pain ceases. Never give it to complete anæsthesia. When that is necessary use ether. It will stop irregular, spasmodic pains, till the true ones come. The efforts of the patient go on the same, and the uterus contracts as firmly as if no chloroform had been given, the object being to take off the sharp edges of the pain, which it will do with perfect safety. He had given it about one hundred times and seen no bad result to either mother or child.

The rigid os yields under the influence of anæsthetics and much time is saved in the first stage of labor.

In excessive resistance of the muscular fibre of the perineum, ether or chloroform may be given to great advantage. In supporting the perineum, lubricate it with lard or oil, and with the right hand, the ulnar side below the anus, endeavor to raise it toward the symphysis pubis.

When laceration seems imminent the application of the short forceps is our greatest aid, for with it the operator can lift the head from the perineum. He had never met with this accident but once when the forceps were used.

When uterine pains become extinct it is much safer to apply the forceps than to give ergot. Apply the forceps rather than let the head press against the perineum for hours. The lever is a useful instrument, especially at the superior strait, when it is difficult to apply the forceps, and to convert face to vertex presentation.

THE REPORT ON SURGERY

was read by Dr. Edward O. Otis, of Exeter. First the present status and methods of the antiseptic treatment were discussed, a list of the antiseptics and antiseptic materials at present most in vogue being given. Especial emphasis was laid upon the application of the first bandage, particularly with reference to drainage, and the method of drainage by skin and muscle canalization was referred to and explained. The "dauerverband" (lasting bandage) was next referred to, and statistics given from Neuber's "Antiseptischen Wundbehandlung und des Dauerverbandes." In a series of fifty-five cases of removal of the breast, in forty-seven of which the axilla was opened and cleared of enlarged glands, the first dressing remained undisturbed in thirty-nine of these cases until perfect or nearly perfect healing was attained. In forty-nine cases of resection of the knee-joint the primary bandage remained untouched in thirty-four until they were quite or nearly healed. Other statistics of like remarkable results were quoted from Neuber.

The method of treating buboes by pressure and antiseptic dressing was given. In connection with this subject, the matter of rest and immobilization in the treatment of wounds was spoken of. The "absorbent cotton-wool tissue" of Mr. Gamgee was exhibited, and his methods of producing immobilization in particular were explained, the one the plaster-of-Paris posterior splint for fractures of the leg, and the other a handy method for making plaster-of-Paris straight splints for various uses. Next the matter of antiseptic obstetrics was considered, and the conclusion arrived at that with pure air and strict attention to cleanliness, the ordinary lying-in case in country practice will do well and puerperal fever be exceedingly rare. Immediate operation for ruptured perineum, with antiseptic precautions, was strongly advocated.

The surgical treatment of pleurisy with effusion and of empyema was next considered, and early paracentesis was advocated in the former and a permanent opening with antiseptic precautions and dressings in the latter. A description of the method of Dr. Cabot, of Boston, was given, and his trocar exhibited. The method of saline injections as a substitute for the transfusion of blood was described, and the apparatus required exhibited; the reader thought it not unlikely that the obstetrician of the future would carry in his bag the simple apparatus for the performance of this operation as constantly as he now carries his bottle of ergot.

Sir Henry Thompson's method of digital exploration of the bladder through an opening from the perineum into the membranous portion of the urethra was next considered, and a case apparently calling for the operation cited in illustration.

Brief mention was made of Otis' method of treating strictures of large calibre by dilating urethrotomy, the reader giving it as his conviction that as time went on this method would receive greater and greater attention from the profession. No one could deny, he said, that this method had done very much toward a more exact and intelligent treatment of strictures, and that the most hopeful prospects in gleet were from its use, depending upon Otis' proposition, which he believed true, that gleet was the result of a mechanical condition, namely, stricture.

Mr. Lister's treatment of fractures of the patella by wiring the fragments was referred to in brief, and lastly administrations of ether by the rectum, the writer considering that the dangers of anæsthesia were much increased by this method, the degree of etherization not being under perfect control, and serious intestinal irritation being at times caused. The manner of using this method at the Boston City Hospital was given, with some results, anæsthesia having been produced in a time varying from four and three-quarters to thirteen minutes, and with two ounces of ether anæsthesia had lasted about thirty minutes.

Dr. Charles R. Walker, of Concord, next discoursed on

SURGICAL CLEANLINESS.

The popularizing of antisepticism by Lister was briefly spoken of. The present status of the spray was then alluded to, and in the light of our present knowledge its use was considered unimportant and impracticable in country practice. The various antiseptics and dressings were considered, the writer concluding that for general purposes carbolic acid or the bichloride of mercury solution was the most feasible for ordinary work. Even when unable to obtain any of the specially prepared dressings, the writer thought that, aided by the pure air of the country, one should not despair of keeping a wound aseptic by means of cotton or any thickly applied clean absorbent material.

The second part of the paper was devoted to showing how clean workmanship, as exemplified by accurate coaptation of surfaces, firm compression, and rest, was the real secret of much of the success of all dressings, antiseptic or otherwise. Finally, he claimed, we imperilled our results by too frequent dressings, declaring that the laws governing the strict use of antiseptic material should govern also the change in all simpler dressings.

Dr. S. M. Dinsmoor, of Keene, read an interesting paper on "Diseases of the Eye," and Dr. S. C. Morrill, of Concord, an essay on the "Treatment of Phthisis."

Dr. E. S. Berry, of Dover, read a paper on

RESPIRATORY IRRIGATION IN THE TREATMENT OF EMPYEMA.

The principal object of the paper was to advocate the great value of traction in bringing about a more rapid expansion of the lung, and to illustrate the comparative advantages of the treatment of empyema in private and country practice by so-called respiratory irrigation over Listerism. After referring briefly to the opinion held by the profession in regard to tapping the chest, prior to 1850, when Dr. Bowditch contributed such valuable service by his earnest advocacy of paracentesis, the reader proceeded to discuss the comparative advantages of Listerism over free drainage and frequent washing out the cavity, claiming that the application or recognition of the principle of traction in the use of the Lister dressing by Dr. Cabot, of Boston, marked an important advance in the treatment of empyema by Listerism. He then reported a case of empyema, treated by respiratory irrigation, in which one end of a rubber tube was made to penetrate the pleural cavity, and held in place by a rubber disk, the other end opening under a solution of thymol in a bottle, which was carried in the pocket. The solution was changed as often as it became turbid, the cavity thus being kept aseptic and constantly irrigated, as with every respiration the solution could be seen to rush up and down the tube. Traction was also constantly exerted upon the compressed lung by the weight of the column of water in the tube. The patient made a rapid and perfect recovery, and required but little after-treatment.

He stated that the above case was reported to a local society in March, 1883, and the value of the principle of traction in bringing about a rapid expansion of the carnified lung was at that time strongly advocated. Since then Dr. Cabot, of Boston, after a much more extended application of this principle, has given strong testimony as to its great value.

In conclusion the reader urged the following in support of the foregoing method of treatment: First, all septic changes are prevented as completely by this method as by the Lister dressing. Second, the important principle of traction is applied continuously by this method and must be as effective in bringing about a rapid expansion of the lung as the Lister dressing as applied by Dr. Cabot. Third, constant irrigation of the suppurating cavity, by which flakes of fibrin and purulent clots are washed out, must at least be as effective in keeping the cavity free from these irritating substances as the occasional washing by the other method. Fourth, the greatest advantage of respiratory irrigation over Listerism, aside from the great expense of the latter, is to be seen in the amount of care and attention required in its management. By the method described the expense is reduced to a minimum and the after-treatment and attention to comparatively nothing.

For these reasons the reader believes that the treatment of empyema by respiratory irrigation commends itself to the attention of the busy general practitioner.

Dr. M. C. Lathrop, of Dover, read a paper

ON MOTHER'S MARKS.

After remarking upon the place and value of philosophic authority, and noting prominent names that endorse the popular belief that impressions made upon the pregnant woman's imagination or sensibilities may appear again physically reflected, as it were, in the body of her child, the reader claimed that the only *raison d' être* for this belief, viz., its asserted necessity—arising from the apparent difficulty in otherwise accounting for the coincidence in resemblance that sometimes exists between object, imagination, and congenital disfigurement—was only apparent, while the physiological objections presented by the wholly parasitic nature of the relation of offspring to mother from the moment of conception to birth, and from the entire distinctness throughout that period of their separate individualities, making the processes of general nutrition the only avenue of operation for such influences, are inseparable. The elaborate attempts of Carpenter and Dalton to prove the *a priori* possibility of their belief are shown to be fallacious. The former, to avoid the "vulgar error," limits his explanation to a small part of the wonderful facts, and most strangely claims to get at the same time, and from identical conditions, most unequal and opposite effects, viz., asymmetrical developments and growths. Dalton, at the last moment, escapes this absurdity (and in the act throws up his case) by assuming under the euphemism "*more sensitive*" an hereditary defect, which alone the reader offered as a rational and sufficient explanation of the whole matter.

Dr. Ezra Mitchell, of Lancaster, read a paper entitled a

REPORT ON GYNECOLOGY,

embracing a report of twenty-three cases of operations for lacerated cervix and perineum by Dawson's method and the results of the same. The radical difference and particular improvement of his operation over others is in the manner of denuding, and in using only two deep and one superficial sutures, thus avoiding the formation of abscesses. The patient also makes a more rapid recovery. The reader then narrated twenty-three cases in detail. These cases were all followed by excellent results, and they demonstrated the fact that the earlier the operation is performed the more perfect the results. In eight cases the operation was performed upon both the cervix and perineum at the same time, and this the writer regarded as the best method of procedure. The paper was a strong one in advocacy of this method, and was so well illustrated by diagrams that the Society could not fail to comprehend the method of operation.

Dr. Mary S. Danforth read a report on "Obstetrics," in which several medico-legal questions were considered, and lastly, a paper was presented by Dr. Perkins on "Laceration of the Perineum."

The report on Necrology, by Dr. E. E. Graves, of Boscawen, consisted of obituary notices of the late Dr. N. Wight, of Gilmanton, by Dr. John Wheeler, of Pittsfield; of Dr. S. M. Whipple, of New London, by Dr. D. P. Goodhue, of Springfield; of Dr. E. O. Fowler, of Danvers, by Dr. John Whest, of Bristol; of Dr. J. W. Merrill, of Concord, by Dr. C. P. Gage, of Concord.

Wednesday, June 18th—Second Day.

The meeting was called to order by the President, after which

REPORTS OF DELEGATES OF DISTRICT SOCIETIES

were presented, giving rise in turn to general practical discussions. The

OFFICERS ELECTED FOR THE ENSUING YEAR

were: *President*—Dr. John Wheeler; *Vice-President*—Dr. George A. Crosby; *Secretary*—Dr. G. P. Conn; *Treasurer*—Dr. D. S. Adams; *Executive Committee*—Drs. Charles R. Walker, Geo. D. Towne, and John R. Kimball.

The meeting then adjourned until the third Thursday in June, 1885.

NEW YORK PATHOLOGICAL SOCIETY.

Stated Meeting, May 28, 1884.

GEORGE F. SHRADY, M.D., PRESIDENT, IN THE CHAIR.

DR. F. FERGUSON presented the following

REPORT OF THE COMMITTEE ON MICROSCOPY.

1. The uterus and tumor presented to the Pathological Society on the 14th inst., by Dr. C. C. Lee, is composed of fibrillated fibrous tissue almost entirely. It involves to a considerable extent the entire thickness of the wall of the fundus of the organ. The uterus in the neighborhood of the tumor presents the normal appearance of uterine tissue.

2. The spinal cord from a case of Pott's disease presented to the Pathological Society on April 30, 1884, by Dr. L. A. Sayre, having been placed in alcohol without the removal of the dura mater, the interior of the cord softened. No statement can be made as to whether pressure had been exerted at any point. In several places it was flattened from contact with the bottom of the vessel in which it was hardened.

CYSTIC OVARIES—BATTEY'S OPERATION.

DR. M. PUTNAM-JACOBI presented the ovaries and Fallopian tubes removed from an unmarried woman, thirty-five years of age, who had suffered greatly from dysmenorrhœa since the age of twenty years, but to which no special importance had been attached until about four years ago. When Dr. Jacobi first examined the patient three years ago, she found the uterus sharply retroflexed, the cavity somewhat enlarged, the endometrium hyperæmic and tender. The right ovary was prolapsed considerably. On the left side of the uterus no ovary could be felt; but there was a soft mass, not like the exudation of cellulitis, but exquisitely sensitive; and dragging the cervix toward the right side always caused pain which was referred to this particular point in the left side of the pelvis. At times the left ovary was found behind the cervix.

The patient suffered, not only from dysmenorrhœa, but from pain, which began a week before menstruation and went on increasing in intensity until the flow was established. She was also in the habit of having attacks of sharp pain four or five days after menstruation, partly colicky in character, and partly like abdominal neuralgia; also constant pain in left hypogastric region, and extending down the extremities; also considerable pain in the back.

The cervix was drawn up quite closely under the pubis and the tissues of the utero-vesical ligament were so sensitive that it was exceedingly difficult to replace the uterus, although the fundus was not adherent. The endometritis was only temporarily relieved by the replacement of the uterus.

The tension of the ligament was finally overcome by stretching, the sensitiveness subsided, and the patient was somewhat relieved, but although the uterus was kept in position, and there was no trace of periuterine inflammation, the pain continued.

The patient was then kept in bed, and cotton was packed in the pelvis, with the view of pushing up the ovaries and diminishing the hyperæmia. Under this treatment she improved to a remarkable extent, very much more than under the treatment directed especially to the retroflexion. But after four or five months the pain began to return, she was a little worse each succeeding month, until in April last the dysmenorrhœa became so severe that the operation for removal of the ovaries was decided upon.

About once in six months, while the patient was under observation, she was seized with colic, of most extraordinary intensity, like biliary or nephritic colic, much more violent than could be explained by simple uterine colic. Some hours after these attacks there escaped from the uterus a small mass of cheesy material. At that time Dr. Jacobi made the diagnosis of accumulation of inspissated mucus at the uterine extremity of the Fallopian tube, as the result of long-standing inflammation of the tube itself, and which excited violent contraction for its expulsion.

The operation was performed five days ago, by Dr. E. M. Cushier, and under antiseptic precautions. It lasted thirty-five minutes, and at no time did the intestines come to view. At no time subsequently had the patient's temperature been above 101° F., and there was every reason to suppose that she would make a complete recovery.

The operation was performed nine days after menstruation, and in view of that fact, special care was taken to count the number of Graafian follicles and also to note the different stages of development.

Leopold has given the result of his examination of twenty-two specimens of ovaries removed by operation, all associated with ovarian disease, and says, that in nearly all of them an unusually large number of follicles were in an advanced stage of development and ready to burst. From these observations he draws what seemed to Dr. Jacobi to be the most extraordinary conclusion, that the view that there is a special relation of time between the ripening of Graafian follicles and menstruation must be given up. Leopold, however, admits that, inasmuch as the specimens were in a pathological condition, the inference may be incorrect. In neary all of his cases there was dysmenorrhœa.

In the specimen presented, the right ovary had one large follicle lined with a membrane having a yellow color, and presenting an appearance somewhat like that seen in a corpus-luteum, but the lining membrane, instead of being thrown into folds formed a simple smooth layer. The follicle was so enlarged that, when fresh, it would have held a large filbert. Besides, there were three other follicles on the anterior surface of the ovary; one filled with fluid but not ready to burst, another containing fluid, and of about the size of a pea, and a third which contained blood. The ovary did not appear especially hyperæmic, although it was evidently enlarged. The Fallopian tube on that side was not enlarged, but intensely hyperæmic, and the blood-vessels in the peritoneal fold were very large. On opening the tube, the mucous surface was not nearly so red as was the peritoneal surface, but it was thrown into folds, and, at the uterine extremity, where the tube was twisted upon itself, there was a cheesy-like appearance as of inspissated mucus, corresponding to the view advanced concerning the character of the colic already described.

The left ovary contained a large cyst, in which there was no trace of tissue, resembling a corpus-luteum. The cyst was large, extended fully half-way down the ovary, was reddened and filled with fluid, and doubtless was the part touched with the finger when making an examination. It was probable that into this cyst hemorrhage had occurred frequently. There was one follicle which presented the appearance of organization of a corpus-luteum. At the base of the ovary was a small fibroid of the size of a filbert. The Fallopian tube presented very much the same appearance as seen upon the right side; at the uterine extremity was a thickened mass as in the other.

There was a subperitoneal fibroid on the surface of the uterus. This, together with the small fibroid at the base of one ovary, possessed considerable interest in connection with the family history of the patient, who had lost one brother with osteo-sarcoma in the axilla, and a younger sister with sarcoma under the maxilla.

It seemed to Dr. Jacobi that, in estimating cases suitable for Battey's operation, the family history should be taken into account, and also the length of time the case has been under treatment.

Dr. F. Ferguson presented specimens removed from the bodies of persons who died of general tuberculosis and head injury. The first illustrated

OLD PERITONITIS,

although there was no history of peritonitis, and the peritonitis was not due to tuberculosis, although the specimen was obtained from the case of general tuberculosis. The coils of intestine were everywhere firmly sealed together by old adhesions. From the same case Dr. Ferguson presented a specimen of

TUBERCULAR ULCER OF THE COLON.

The second specimen illustrated

INJURY OF THE VERMIFORM APPENDIX,

shown by destruction of the appendix, just above the middle, and being converted into a fibrous cord. There were old adhesions binding the upper surface of the liver to the diaphragm.

Dr. W. M. Carpenter said, concerning the second specimen presented by Dr. Ferguson, that it reminded him of a recent monograph written by Vierordt, and entitled "Chronic Exudative Peritonitis," in which the author gave the history of several cases, in some of which the patients recovered and lived for several years, while others died of affections directly or indirectly dependent upon the chronic exudative peritonitis. The appearances described were very much like those presented by the intestines shown by Dr. Ferguson. General agglutination of all the coils of intestine with each other, more or less of thickening, but not necessarily any adhesions to the abdominal wall. Ascites was a prominent symptom at some time in the history of the case. While reading the paper he was reminded of two or three cases seen in private practice, in one of which typhoid fever was soon followed by symptoms of subacute peritonitis. In this case the patient, a woman, lived nearly two years after the sickness with typhoid fever. At the autopsy there was found universal exudative peritonitis, with enormous dilatation of the large intestine, but no evidence of tubercle. There was also old pleurisy with fibrous induration at the apex of one lung. There was marked ascites in all the cases, and after a time the symptoms subsided under treatment, and two of the patients ultimately recovered, and lived a number of years. The condition was not traceable to the ordinary causes of peritonitis, nor was there any history of tuberculosis. One of the patients, a woman, lived for ten or twelve years after being under his care for this condition. Another, a man of somewhat advanced age, lived for four or five years, and ultimately died of cancer, which manifested itself upon the lip. He had not seen this group of cases well described before reading the monograph by Vierordt, and he believed the case related by Dr. Ferguson belonged to that class. Vierordt also spoke of ulcer of the stomach as one of the causes of chronic exudative peritonitis. In Dr. Ferguson's specimen there existed ulcer of the large intestine, between which and the stomach a close relation exists.

Dr. J. C. Peters referred to a case occurring in a female, and caused by exposure to cold, which produced not only peritonitis, but pleurisy, pericarditis, congestion of the lungs, and metrorrhagia. She was sick between three and four months before she recovered passably. Eight or nine years had elapsed since, during which time the patient had suffered daily from pain in the abdomen, and excessive pain on defecation. The peritonitis was very distinct at the time of the attack, and diagnosis of adhesions of the intestines had been made repeatedly since by several physicians.

The Society then went into executive session.

Vacation of the Medical Societies.—After the end of June there will be no more meetings of medical societies until September.

Correspondence.

OUR LONDON LETTER.

(From our Special Correspondent.)

A NEW FLOATING SMALL-POX HOSPITAL—THE PREVALENCE OF SMALL-POX—VACCINATION AND RE-VACCINATION—THE ADDRESS IN MEDICINE AT BELFAST—A K.C.B. FOR DR. ACLAND—THE UNIVERSITY OF DURHAM AND ITS MEDICAL DEGREES—THE FIASCO AT THE BIRMINGHAM MEETING OF THE BRITISH MEDICAL ASSOCIATION—RECENT DEATHS.

London, June 10, 1884.

Another hospital ship has been added to those already on the Thames by the acquisition of the twin steamer Castalia. As a Channel steamship she was unfortunate. Having been purchased for the moderate sum of £5,500 by the Metropolitan Asylums Board, the Castalia has been converted into a floating hospital for small-pox cases. It is to be hoped it may prove of greater service in its new capacity than it did in its old. Considerable trouble and expense have been incurred to fit the vessel for its new purpose. The wards between decks have been furnished with openings in the roof leading to a huge funnel, at the top of which is an exhaust apparatus. When the wind is blowing this causes a strong up-current in the funnel, and thus carries away the foul air from the wards. In a calm steam power is used to drive jets of air up the funnel, and thus create an artificial draught. Fresh air enters through apertures at the side of the ship, and is passed through chambers warmed by hot-water coils before gaining access to the patients' quarters.

The wards on the upper deck are ventilated on a different principle. The perflative force of the wind has here been brought into service. The arrangement adopted is curious. We have, in fact, a modification of the "pavilion" system. On each side of the ship are a series of wards with gabled roofs, which are placed so that their long axis is at an oblique angle with a line drawn fore and aft. These "huts" are detached, but connected with one another by passages running down the vessel. The advantage of the plan adopted is that the end windows catch the wind, which then passes out through the side windows, instead of the foul air being blown from bed to bed as would be the case were the position of the wards exactly transverse to the long axis of the ship, and the ventilation effected by windows on either side of the vessel. Accommodation for about two hundred patients is provided, and the ventilating arrangements provide for a supply of 2,000 cubic feet per hour to each patient. The Castalia will be stationed off Purfleet.

Small-pox is still prevalent among us. The number of cases during the last two months has been much above the average. During the week ending May 24th the number of small-pox cases under treatment in the hospitals of the Metropolitan Asylums Board rose to 924, being an increase of 189 on the previous week. During the same period the deaths from small-pox in London were only 24, being little more than half of those of the preceding week. The majority of the cases are at the East end. There is little hope of stamping out the disease until vaccination is more universally carried out. We have to deal with, on the one hand, the fanaticism of anti-vaccinators. On the other hand, we must remember that a sufficient number of years has not yet elapsed since vaccination has been made compulsory to insure vaccination of the entire population. A large number of persons are still living who were born before compulsory vaccination came in, and many of these have never been vaccinated. Re-vaccination is not compulsory, and is commonly neglected. Some interesting letters have recently appeared in our medical weeklies, containing facts which show that the failure of re-vaccination does not prove the person to be protected, since repeated attempts

at revaccination on the same person have finally succeeded. One or two instances are mentioned in which five revaccinations were performed on the same individual. The first four failed, but the last gave a good result.

Sir Andrew Clark will not, after all, give the address on "Medicine" at Belfast. His place will be taken by Dr. William Miller Ord, Physician to and Joint-Lecturer on Medicine at St. Thomas' Hospital, London.

Dr. Acland has been made a K.C.B. I expressed surprise some time since that only the paltry C.B. should have been given him, and the Government now appear to see their error and to be willing to repair it. The K.C.B. is highly valued. It is much more thought of than an ordinary knighthood, and a baronetcy is only more esteemed as being hereditary; but Sir William Jenner accepted a K.C.B. after having been a baronet for many years.

The University of Durham is just now attracting a good deal of medical interest. A pretty little quarrel seems on the carpet. This Northern university, which until a few years since was virtually merely a place for parsons to graduate at, has lately pushed its medical department. It grants its medical degrees in two ways: 1, to those who attend for at least one year out of their four at its medical school—situated not at Durham, but at Newcastle-on-Tyne, some twenty miles distant; 2, to any practitioner who has been in practice fifteen years, and who is prepared to pay fifty guineas and pass a somewhat modified examination.

It has been suggested that practitioners should be allowed to go up for M.D. after only *ten* years' practice. Practitioners say that if a degree is to be of any use to them they need it earlier in life, and that if a man has been in practice fifteen years he should have made his mark and be independent of any mere titular distinction. Those who have graduated after residence say that the other mode of granting degrees should be abolished. Those who reside only obtain M.B., and have to wait two years before they can go up for the M.D. They say it is unfair because a man has been in practice a good many years to let him up without residence, and for an easy examination to give him the M.D. at once.

Both parties look at the matter from a purely selfish point of view, and with little regard for the real interests of the profession. The University of Durham does not act from much better motives. When it started the new method of giving the M.D., no doubt a very important motive was the prospect of getting a good many fifty-guinea fees from the medicals, and thus get assistance in carrying on the work of qualifying a few impecunious clergy for ordination in the Church of England. It was certainly an unfortunate thing that when the university was founded—thirty or forty years ago—as an ecclesiastical college for the North of England, under the management of the Bishop of Durham and the Dean and Chapter, it should have been empowered to grant degrees in all the faculties, and thus have added one more to the already too numerous licensing bodies. With the effrontery characteristic of a clerical high-school it imitates the old universities by assuming to grant not only degrees, but a license in medicine, a license in surgery, and more lately still—yesterday as it were—a certificate in sanitary science.

It cannot for a moment be supposed that residence in Newcastle-on-Tyne and a year's study at its (fifth-rate) medical school can be of greater value than the same time spent in London, or can partake in the slightest degree of the nature of a university education. Why not, therefore, throw aside this sham, rely solely on its examinations as tests of knowledge, and admit any registered practitioner who can pass its ordinary examinations? Then there would be a great influx of fee-laden candidates, and among them some would probably confer honor on their school. This would be an advance; for even among the clerics I am not aware that any one of distinction is indebted to Durham for his education. It is to be regretted that the new Victoria University did not throw open its doors as just suggested.

The British Medical Association has just held an extraordinary general meeting at Birmingham. Only twenty-six were present. It seems that some members of the Association were discontented at the amount of space granted them in the *Journal* wherein to discuss their own crotchets, so they requisitioned a general meeting *in London*. Following precedent, the meeting was announced officially to meet in Birmingham, whereupon none of the fifty-three malcontents thought fit to go. Their discontent evidently was not very active, or it would not have been extinguished by the prospect of a railway journey of only three hours from London, and the expenditure of less than two pounds. The editor (Mr. Ernest Hart) made a statement as to the alleged complaints, and so far seems to have had the best of it. Of course we do not know to what giddy heights of eloquence the fifty-three might have risen had they been there. But then they were not; not even one went. Could not one raise even twenty-five shillings for a second-class ticket? If not, they might have subscribed sixpence apiece so as to send a delegate.

Two deaths of note have just occurred, viz., those of Dr. Stannus Hughes, of Dublin, Professor of Surgery at the College of Surgeons of Ireland, and Dr. Tweedie, F.R.S. Dr. Tweedie was in his ninetieth year, and had long been retired. He belonged to the past generation of clinical physicians. He was joint-editor of the "Cyclopædia of Practical Medicine," which is doubtless familiar to some of the elders among your readers.

OBSTETRICS IN VIENNA.

To the Editor of The Medical Record.

Sir: The lying-in wards of the Allgemeine Krankenhaus in Vienna are probably more frequented by physicians and students than any others on the Continent. Medical men from all parts of the world pass through these wards both day and night, some merely to see if an interesting case is on hand, others to post themselves ready for duty, expecting a case of forceps or a breech extraction may fall to their lot.

There are three divisions of these wards, each quite separate and distinct from the others, differing also in some minor points as to treatment. The first and second divisions are under the charge, respectively, of Professor Carl Braun and Josef Spaeth; the third, under Professor Gustave Braun, is reserved for the instruction of midwives. A matriculation fee of ten gulden entitles one to practise in either of the first two divisions, six or eight matriculants are appointed daily for duty, and in Spaeth's ward three are allowed to examine each patient, thus affording opportunity of examining from ten to fifteen cases daily; in Braun's ward only one matriculant is allowed to a case, nor can he pass on and obtain another until the first has completed the third stage. Matriculants are not usually allowed to operate unless they have had private courses of instruction under one of the professors' assistants. These courses are very instructive, and although somewhat expensive are the means to obtain the confidence of the assistants, who have almost unlimited control of the wards, performing nearly all the obstetrical operations and a large proportion of the gynecological. They often remain as assistants for eight years, and are generally competent and excellent teachers, enthusiastic in their work and making their courses among the most popular in Vienna.

Unfortunately, in 1883 the "Board of Regents" (?) established the plan of appointing for each ward a native of Austria, whose privilege it is to perform all operations the assistant may think indicated. This plan, it is hoped, will secure to the Austrian practitioner the opportunity of becoming skilled in obstetrical operations,

which privilege, it is claimed, has heretofore been monopolized by foreigners.

All patients applying for admission to the lying-in department are sent to the several divisions, alternating in their order every twelfth hour; this has the effect of distributing the patients equally in the three divisions, and gives the nurses and attendants every third day for rest, and affords a better opportunity for the thorough disinfecton of the confinement rooms. There are between twenty-five and thirty confinements daily, and a much larger number of applicants for admission are examined by the assistant, and if found to be in or near the first stage of labor they are accepted, and four of the numerous students and matriculants generally at hand on these occasions are allowed to examine each patient so admitted. Free access is given matriculants to the confinement rooms at all hours of the day and night, two skilled midwives are in attendance, the temperature of each patient is taken, and those exhibiting a marked rise, or with offensive lochia, are isolated and exempt from examination until full instructions have been received from the assistant in the management of natural labor as carried out there. I wish more particularly to note the following: First, absence of measures to hasten the completion of first stage; second, absence of anæsthetics; third, measures to prevent laceration of the perineum; fourth, speedy completion of the third stage.

Braun says: "In the stage of dilatation nothing should be done to hasten the physiological labor or to bring on pains." He objects to steam baths, oxytocics, and dilating vagina or os uteri; recommends systematic attention to the bladder, avoiding the use of catheter if possible, and empties the rectum by warm-water injections.

Anæsthetics are avoided in natural labor, and immunity from post-partum hemorrhage is claimed in consequence. In vertex presentations the patient is allowed to remain in the dorsal position until the head appears at the vulva, or until the perineum begins to show the pressure; she is then turned on to her left side, the left leg and thigh extended, the right thigh flexed, and a pillow placed under the right knee; the midwife sits at the back of the patient, places her left hand under the patient's right thigh, and presses upon the fœtal head as it appears at the pubic arch; the right hand is free to "support the perineum," which is not advised, the object being to keep back the head until the perineum is sufficiently distended, and to deliver if possible between the pains.

Nearly all primiparæ are treated in this manner, and those multiparæ in whom laceration of the perineum is threatened. That this method preserves the continuity of many a perineum there can be no doubt in the minds of those who have given it a trial. With certain midwives in the Vienna wards a ruptured perineum scarcely ever occurs, while with those less skilful and with matriculants success is not so marked.

At the completion of the second stage the midwives are instructed to wait for fifteen or twenty minutes before making efforts to hasten the expulsion of the placenta. They are not, however, careful to obey this rule to the minute, for unless the placenta follows the expulsion of the child in a few minutes, they employ Crede's method, and if after several minutes of such kneading the placenta is not expelled, they forcibly express it.

After the completion of the third stage, and as soon as the child has been duly prepared and so abundantly swaddled that it looks like an Egyptian mummy, the patient is carried to another room, where she is kept for eight days, and if all progresses favorably, is then sent to the Foundling Asylum, where she remains for sixty days, and from which she almost invariably departs without the child, which, if a male, is carefully watched over by the Government and booked for the army.

Professor Carl Braun has had charge of the "First Obstetrical and Gynecological Clinic" in Vienna since 1856, and was for many years prior to that date assistant in the same, and in his reports[1] bearing on the causes and prevention of puerperal fever, it appears that, during the fifteen years from 1834 to 1849, there were in these wards 42,105 confinements, with 3,485 deaths, or an average rate of mortality of eight per cent.; the worst year was 1842, when, out of 3,067 confinements, 521 deaths occurred, or $16\frac{9}{10}$ per cent.

The wards reserved for the instruction of midwives showed more favorable statistics at that time, the mortality averaging about three per cent.; it must be remembered, however, that the matriculants in the first division were at times frequenting the Pathological Institute, and many of them engaged in operative courses. In the fourteen years from 1849 to 1863 there were 57,569 confinements, with 2,004 deaths, or an average rate of $3\frac{6}{10}$ per cent. This series would have shown a better average had it not been for the years 1854–55–56, in which the average rate rose terribly, being $9\frac{1}{10}$ per cent. in 1854, and due, it is claimed, to the abandonment of antiseptic measures, although Lusk[2] seems to have arrived at an opposite conclusion.

In the sixteen years from 1863 to 1879, there were 61,949 confinements, with 998 deaths, an average rate of $1\frac{6}{10}$ per cent., as against eight per cent. in the first series, and $3\frac{6}{10}$ per cent. in the second; the worst year being 1872, with 578 matriculants working in the wards, and a death-rate of $2\frac{1}{2}$ per cent; the best year 1877, with but 192 matriculants and a mortality rate of one per cent. Of the 998 deaths, 825 were from puerperal fever, or eighty-three per cent., and of the remaining 173, the post-mortem returns show 165, as follows: Bright's disease, 59; rupture of uterus, 26; pulmonary tuberculosis, 14; pneumonia, 14; acute anæmia, 10; vitium cordis, 4; acute atrophy of liver, 6; embolism of the pulmonary arteries, 3; meningitis, 3; cerebral apoplexy, 3; amyloid degeneration of liver, 3; variola, 3; pulmonary œdema, 2; pericarditis, 2; endocarditis, 2; erysipelas, 2; hæmatoma, 2; abscess of symphisis pubis, 2; rupture of aorta, 1; dysentery, 1; typhoid fever, 1; emphysema uteri, 1; poisoning, 1.

In 1847 Semmelweis held that puerperal fever was an infectious disease, causes generally heterogenetic, and in accordance with these views prophylactic measures were introduced in the Vienna wards, such as antiseptic washing of hands, dressings, instruments, etc. The year previous, *i.e.*, 1846, the rate of mortality had been $13\frac{6}{10}$ per cent.; it dropped after the introduction of these measures to $5\frac{2}{10}$ per cent. in 1847, and to $1\frac{2}{10}$ per cent. in 1848; in fact 45 deaths in 1848, against 459 deaths in 1846; the average rate, however, remained high until 1863, when it was greatly reduced by the most careful antiseptic measures and by the new system for heating and ventilation. All midwives and matriculants are obliged to have their hands thoroughly cleansed, then washed with a two per cent. solution of carbolic acid, and to use regularly a two per cent. solution of carbolated glycerine; and in Braun's ward, after every examination of a fever patient, or of one with offensive lochia, the hands are dipped in a weak solution of permanganate of potash, thus beautifully colored, and necessitating a thorough washing in a dilute solution of hydrochloric acid until the brown coloration is removed.

The patient, however, is not molested. Cleanliness is insisted on, and an occasional hip-bath, and washing the vulva with a two per cent. solution of carbolic acid or weak salicylic or thymol solutions are recommended. Ruptures of the perineum and episiotomy wounds are immediately united, with sutures generally, occasionally with serres-fines, and dusted with iodoform or touched with a carbolic acid solution. After severe operations the cavity of the uterus is syringed with a two per cent. carbolic acid solution, the fountain syringe and hard-rubber tube being employed, and since 1881 it has been the practice to insert a pencil of iodoform in the uterine cavity after

[1] Lehrbuch der gesammten Gynaekologie, p. 883.
[2] Lusk's Midwifery, p. 635.

syringing. In cases with high temperature and offensive lochia the uterus is syringed out several times during the day, and one or two iodoform pencils introduced, and quinine given. These iodoform bacilli contain about eighty per cent. of the pulverized iodoform, and mixed with equal parts of gum-arabic, starch, and glycerine; they vary in weight from 80 to 120 grains.

Since this treatment was introduced the rate of mortality has been reduced to $\frac{6}{10}$ of one per cent. Carl Braun held, as late as 1880, that the treatment by injections into the cavity of the uterus during the first few days after labor, is very dangerous if carried out generally in lying-in institutions, and protested against its employment in private practice.

In both wards the small proportion of cases requiring the application of the forceps is noticeable. Simpson's is preferred, and for craniotomy the trepan-perforator of Kiwisch modified by Braun is used.

Cæsarean section was in bad repute in Vienna until June, 1877, when Spaeth made the first successful operation after Porro's case of May, 1876. Carl Braun followed in the next two years with five operations, saving all the children and three of the mothers. All were made according to Porro's method, and since 1879 the operation has been performed with some modifications, a great many times, with excellent results.

As prophylaxis against ophthalmia neonatorum, an aqueous solution containing one per cent. of argent. nitr. is employed, the nurse applying the same immediately after the child is washed.

Königstein and Fürst report $\frac{7}{10}$ of one per cent. affected by this trouble in Spaeth's wards, and $1\frac{7}{10}$ per cent. in Gustave Braun's wards.

WILLIAM L. ALLEN, M.D.

DAVENPORT, IA.

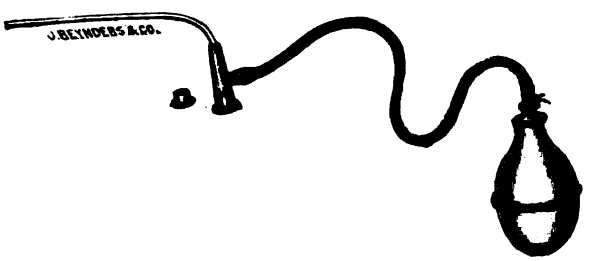
New Instruments.

AN INSTRUMENT FOR MAKING APPLICATIONS OF MEDICATED POWDERS TO THE MIDDLE EAR.

BY J. A. ANDREWS, M.D.,

OPHTHALMIC SURGEON TO CHARITY HOSPITAL, ETC., NEW YORK.

THE instrument figured below is a modified form of one described by the writer in the *Archives of Medicine*, vol. iii., April, 1880. The receiver for the powder is cone-shaped and has been made much larger, being 3.75



ctm. ($1\frac{1}{2}$ in.) in length and 1.5 ctm. ($\frac{5}{8}$ in.) in diameter at the base. The rubber tubing is adjusted at the side of the receiver. A mouthpiece may be substituted for the air-bag, but there is this objection to the use of the former—the moisture of the breath condenses on the interior of the tube, and the powder adheres to it and soon obstructs the tube; therefore, unless a large-sized tube be employed, it would be better to attach the small air-bag ($1\frac{1}{2}$ in. in diameter, 2 in. long). The metal tube is 12.5 ctm. (5 in.) long, and No. 5 of the French scale. The advantage of having the tube constructed so delicately is that it enables the operator at once to conduct its point to the perforation in the drum membrane, supposing the former to be very small, and offers as little obstacle to the illumination of the external auditory canal as would be occasioned by the introduction of a dentist's cotton-holder.

The mode of employing the instrument is as follows (it is understood that there must be a perforation in the drum membrane): Suppose a case of purulent inflammation of the middle ear, with a small perforation in the drum membrane—and it is in just such cases that this little instrument will be appreciated—the first thing to be done, of course, is to thoroughly cleanse the ear with absorbent cotton wrapped about the end of a dentist's cotton-holder, and with due respect for the delicacy of the parts at the bottom of the external auditory canal—and it is impossible to lay too much stress upon the importance of attention to this point. In some cases in which the membrane is considerably destroyed and the discharge is abundant and offensive, the syringe had better be used, and the ear afterward dried with the cotton-wool. This having been done, the chamber is filled with whatever powder may be chosen. The point of the tube is then conducted with care through an aural speculum, under good illumination from a mirror on the forehead, to the perforation in the drum-membrane and the powder blown into the middle ear by means of the mouthpiece, or air-bag.

Care should be taken not to pass the point of the instrument too far beyond the perforation in the drum-membrane; injury to parts in the middle ear will thus be avoided. If it be desired to use medicated fluids, then the instrument for applying them, described in the same number of the journal above referred to, may be employed.

40 W. TWENTY-FOURTH STREET.

Army News.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, United States Army, from June 8 to June 14, 1884.

The Army Medical Examining Board, New York City, is dissolved, to take effect June 14, 1884.

GARDNER, EDWIN F., Captain and Assistant Surgeon. Relieved from duty at Fort Walla Walla, Wash. Ter., and assigned to duty as Post Surgeon, Fort Canby, Wash. Ter. S. O. 75, par. 1, Headquarters Department of Columbia, June 3, 1884.

BARNETT, RICHARDS, Captain and Assistant Surgeon. Assigned to duty as Post Surgeon, Mount Vernon Barracks, Ala. S. O. 113, par. 2, Headquarters Department of the East, June 9, 1884.

MIDDLETON, PASSMORE, Captain and Assistant Surgeon. Leave of absence extended three months on surgeon's certificate of disability. S. O. 134, par. 3, A. G. O., June 10, 1884.

BROWN, JOS. B., Lieutenant-Colonel and Surgeon. Upon completion of the business of the A. M. B., directed to comply with S. O. 44, current series, A. G. O., and return to New York City.

CLEMENTS, BENNETT A., Major and Surgeon. Directed to await orders in New York City.

KIMBALL, JAMES P., Captain and Assistant Surgeon. Granted leave of absence for two months and fourteen days, to take effect June 14, 1884, and ordered to relieve, August 28, 1884, Captain Robert H. White, Assistant Surgeon, from duty at U. S. Military Academy, West Point, N. Y. Captain White, on being relieved, ordered to report in person to the Commanding General Department of California for assignment to duty.

STERNBERG, GEORGE M., Major and Surgeon. Relieved from temporary duty in S. G. O., and ordered to assume the duties of Attending Surgeon and Examiner of Recruits at Baltimore, Md. S. O. 131, A. G. O., June 6, 1884.

FINLEY, J. A., Captain and Assistant Surgeon. Relieved from duty at Fort Stockton, Tex., and assigned to duty as Post Surgeon, Fort Concho, Tex. S. O. 69, par. 4, Headquarters Department of Texas, June 2, 1884.

Official List of Changes in the Medical Corps of the U. S. Navy, during the week ending June 14, 1884.

AUSTIN, A. A., Passed Assistant Surgeon. Detached from U. S. S. St. Louis, ordered to Naval Rendezvous, Philadelphia.

EDGAR, J. M., Passed Assistant Surgeon. Detached from U. S. S. Wabash, ordered to U. S. S. Nantucket.

BALDWIN, L. B., Passed Assistant Surgeon. Ordered to U. S. S. Wabash.

WHITAKER, H. W., Assistant Surgeon. Detached from Naval Rendezvous, Philadelphia, ordered for examination preliminary to promotion.

HESLER, F. A., Assistant Surgeon. Ordered to U. S. S. Minnesota.

MEANS, V. C. B., Assistant Surgeon. Ordered to U. S. S. Vermont.

BROWNE, J. M., Medical Director. To attend the International Health Exhibition at Liverpool, England, and delegate to International Medical Congress, at Copenhagen, per steamer of July 2.

TRYON, I. R., Surgeon. To same duty, with Medical Director Browne, and on completion of this duty, to report for duty on U. S. S. Quinnebaug.

HUGG, J., Surgeon. Detached from U. S. S. Quinnebaug on reporting of relief, to return home and report arrival.

Medical Items.

CONTAGIOUS DISEASES—WEEKLY STATEMENT.—Report of cases and deaths from contagious diseases reported to the Sanitary Bureau, Health Department, for the week ending June 14, 1884:

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Cases.								
June 7, 1884.....	6	11	67	5	142	50	0	0
June 14, 1884.....	3	10	62	3	126	48	0	0
Deaths.								
June 7, 1884.....	0	1	6	4	23	24	0	0
June 14, 1884.....	1	6	10	3	19	28	0	0

NEITHER DEAD NOR SPEECHLESS.—In 1730 the Duchess Dowager Hamilton was reported either dead or speechless. She published a contradiction, thus: "I have been ill in my health for several months, but never speechless, and my most intimate friends think that is the very last thing that will happen to me. E. Hamilton."

THE LEGALITY OF CREMATION.—An English case in the High Court of Justice recently turned upon the point whether cremating a corpse was an offence in the eye of the law, and the opinion rendered was very interesting. There was nothing in the common law on the subject which was controlling, and Parliament had never legislated for or against the practice. In the special case at bar, a person had been indicted by a grand jury for the act of burning the dead body of his child, upon the theory that it must be considered a misdemeanor, although not expressly stated to be so by statute, and the opinion from which we quote was delivered to the grand jury upon the question of the right to find such an indictment. The increasing frequency with which this mode of disposing of the dead is being adopted both in this country and in England makes the matter one of great interest. We quote as follows: "After full consideration, I am of opinion that a person who burns instead of burying a dead body, does not commit a criminal act, unless he does it in such a manner as to amount to a public nuisance at common law. My reason for this opinion is that, upon the fullest examination of the authorities, I have, as the preceding review of them shows, been unable to discover any authority for the proposition that it is a misdemeanor to burn a dead body, and in the absence of such authority I feel that I have no right to declare it to be one. There are some instances, no doubt, in which courts of justice have declared acts to be misdemeanors, which had previously been decided to be so, but I think it will be found that in every such case the act involved great public mischief or moral scandal. It is not my place to offer any opinion on the comparative merits of burning and burying corpses, but before I could hold that it must be a misdemeanor to burn a dead body, I must be satisfied not only that some people, or even that many people, object to the practice, but that it is, on plain, undeniable grounds, highly mischievous or grossly scandalous. Even then I should pause long before I held it to be a misdemeanor, for many acts involving the grossest indecency and grave public mischief —incest, for instance, and where there is no conspiracy, seduction, or adultery—are not misdemeanors. But I cannot take even the first step. Sir Thomas Brown finishes his famous essay on urn burial with a quotation from Lucan, which in eight words seems to sum up the matter: '*Tabesne cadavera solvat an rogus haud refert*' —Whether decay or fire consumes corpses matters not. The difference between the two processes is only that one is quick, the other slow. Each is so horrible that every healthy imagination would turn away from its details; but one or the other is inevitable, and each may be concealed from observation by proper precautions. There are, no doubt, religious convictions and feelings connected with the subject which every one would wish to treat with respect and tenderness, and I suppose there is no doubt that as a matter of historical fact the disuse of burning bodies was due to the force of those sentiments. I do not think, however, that it can be said that every practice which startles and jars upon the religious sentiments of the majority of the population is for that reason a misdemeanor at common law. The statement of such a proposition, in plain words, is a sufficient refutation of it, but nothing short of this will support the conclusion that to burn a dead body must be a misdemeanor. As for the public interest in the matter, burning on the one hand effectually prevents the bodies of the dead from poisoning the living. On the other hand, it might no doubt destroy the evidence of crime. These, however, are matters for the legislature, and not for me. It may be that it would be well for Parliament to regulate or to forbid the burning of bodies, but the great leading rule of criminal law is that nothing is a crime unless it is plainly forbidden by law. This rule is no doubt subject to exceptions, but they are rare, narrow, and to be admitted with the greatest reluctance, and only upon the strongest reasons. This brings me to the last observation I have to make. Though I think that to burn a dead body decently and inoffensively is not criminal, it is obvious that if it is done in such a manner as to be offensive to others it is a nuisance of an aggravated kind. A common nuisance is an act which obstructs or causes inconvenience or damage to the public in the exercise of rights common to all her majesty's subjects. To burn a dead body in such a place and such a manner as to annoy persons passing along public roads or other places where they have a right to go is beyond all doubt a nuisance, as nothing more offensive both to sight and to smell can be imagined. The depositions in this case do not state very distinctly the nature and situation of the place where this act was done, but if you think, upon inquiry, that there is evidence of its having been done in such a situation and manner as to be offensive to any considerable number of persons you should find a true bill."

UNUSUAL PARTURITIONS.—Dr. W. R. Chittick, of Detroit, Mich., writes: "Unusual parturitions being in order, let me mention a case which I attended, and which is reported in full in the Detroit *Lancet* for October, 1883. Was called to attend Mrs. H——, who, messenger said, had rheumatism of the heart. Arrived within twenty minutes, and found twins had been born, one with membranes intact. There were but two pains, one immediately following the other, and with the second both children came, the labor lasting, as she said, only five minutes. After making her comfortable I discovered that she was ill with *croupous pneumonia*. She was eight months pregnant, and labor was brought on by the condition of the lungs. The mother made a splendid recovery and the children lived three months, when they succumbed to enteritis."

THE TREATMENT OF TAPEWORM.—Dr. Thomas Wilde, of Brooklyn, sends in the following item: "On April 26th, I presented to the members of the New York Pathological Society a complete tapeworm removed the day before. My desire was to inform the members of the society, and the profession at large, how these dreaded parasites could be easily removed and with trifling inconvenience to patients. In the report of proceedings published in THE MEDICAL RECORD, May 31, 1884, the most important part of the treatment is not mentioned. I refer to the preparatory treatment. Administer fluid extract of male fern three times daily, after meals, for one week. Dose, half a drachm. Make no change in diet. Pay no attention to the bowels. At expiration of the week order two ounces of the fresh bark of pomegranate root made into infusion or decoction to one pint. Commence in the morning and take a wineglassful every half hour or hour, dependent upon its effect on the stomach, until all has been taken. Then follow, about 11 A.M., with the following laxative:

℞. Olei ricini..... ℥ iij.]
Olei terebinth.,
Fl. ext. filix mas.....āā ʒ j.
M.

The above is my treatment for tapeworm in adults. I have always used the fluid extract of male fern, though many prefer the ethereal extract. In one of my cases the worm was expelled in one piece before the hour arrived for taking the castor-oil mixture, but as the patient considered it part of the treatment it was taken on time. The first tapeworm I attacked was in 1866. The fight lasted over two years. I had been taught the importance of starving the worm before attempting its removal. The patient was a lady, and heroically starved and starved until she was unable to fast any longer, but all to no purpose. I concluded the starvation treatment was a delusion and abandoned it. The above treatment was adopted and the worm was easily destroyed. I have followed the same plan in five other cases, and in eachf the worm was easily expelled."

A CASE OF ADIPOCERE.—Dr. George A. Harding, o Sault Ste. Marie, Mich., writes: "A case of interest in the way of post-mortem change of the human body has recently come to my notice. Mrs. C—— died in the fall of 1876, aged fifty-six years, after an illness of some years' duration caused by (as reported) diabetes mellitus. She was buried in a sandy elevation of land that rose from a marshy tract, and was not disturbed till a few days since, when her family friends thought best to remove the remains to their lot in this village, and disinterred them for that purpose. They were much surprised when, on trying to lift the coffin in which she was buried, they discovered that it was very heavy, and this led them to open the box. They found the remains apparently little decomposed, and after the removal of a thin covering of earthy material the face, and, indeed, the whole body, looked so natural that it was easily recognized by those who knew her during life, and as the flesh seemed hard, the report was soon circulated that she was petrified. Drs. Ennis and Gandy, in company with myself, made examination, and found the body, to all appearance, as reported, except, of course, the petrifaction. The external layer had the look of true skin, even discolorations and sores that were on the body at death remained as left at burial. Her head was bald during life, but short hairs on the face still remained and were firm as in life; the nose was pliable in its lower portion, and the lips could easily be opened and closed. She was originally a very large woman, and fleshy, weighing nearly three hundred pounds, and the fulness of form still remained, with little or no shrinkage in any part. On using the knife we found that it made its way through the material with difficulty, cutting very much as it would in frozen or very cold leaf lard. The appearance of the cut surface was like that of quite white raw tallow, and emitting an odor similar to that of salted cadavers. A gas, also offensive in odor and in considerable quantity, escaped from the abdominal cavity on opening, and it was found to contain much of the same material as the body through which the thin remains of nearly all of the intestines passed. The kidneys were missing, but the liver remained entire, and to the feel and appearance seemed quite natural, except more grayish in color. The heart and lungs, too, were absent, though the diaphragm and pericardium were in position and quite firm in consistency. I suppose there will be no hesitancy in pronouncing this adipocere, but the general firmness of parts, the natural appearance of the whole body, and the greasy appearance, made it an exceptional case and one worth remembering. The grave was near a swamp, and at times full of water. The woman being very fat, the conditions were right for the formation of adipocere, which is simply an ammoniacal saponification of the body."

POISONING FROM HYDROCYANIC ACID—VERY SLOW ELIMINATION OF POISON.—Dr. G. W. Maser, of Parsons, Kan., sends us the history of a young man, aged twenty-seven years, who by mistake took a drink of a preparation of hydrocyanic acid (artificial bitter oil of almond). This was at 9 o'clock A.M. He drank salt and water, and vomited freely; became very weak. Dr. Maser saw him about two hours later, when he was retching, cyanotic, weak; pulse only 60; apparently becoming collapsed; pupils dilated. Stimulants and iron were given, and he improved, then sank again. From 1 to 8 P.M. was unconscious, and had at times tonic spasms of all the flexor muscles. Cold douche to chest and artificial respiration were employed. At 6 P.M. breathing was better and cyanosis less. Next day patient was up and dressed, but suffered from frequent and painful micturition, and complained of taste of bitter almonds in his mouth. Dr. Maser writes: "For several days I distinctly got the odor of the acid in the breath. But all the text-books say that it is very rapidly eliminated, *i.e.*, in two or three hours. What I would like to understand is, whether the teaching as laid down in our text-books regarding the elimination of hydrocyanic acid is correct."

A RARE FORM OF LUXATION—DISLOCATION OF THE FIRST PHALANX OF THE THUMB FORWARD.—Dr. F. W. Putnam, of Binghamton, N. Y., writes: "T. J. C——, aged ten years, called at my office May 24, 1884, having a dislocation of the first phalanx of the left thumb forward. It was caused about half an hour previously by falling from a swing. I reduced it by grasping the thumb with my right hand, and the boy's left hand with my left hand, and making steady extension of the thumb, and counter-extension of the hand, and then firm and quite forcible flexion of the thumb. The luxation was thus readily reduced."

SIR WILLIAM SIMPSON.—The Edinburgh Tercentennial has set afloat a world of personal gossip and anecdote regarding the older teachers in that school. Says a writer in *The Cornhill*, regarding Sir William Simpson: "His appearance was remarkable; Gerald Massey has

graphically described it in his dedication to one of his poems, 'Body of Bacchus with the head of Jove.' I remember no one in his profession who more impressed me as being a man of genius than he did. If not a wit himself, he was, at all events on one occasion, the cause of wit in another. He had, of course, an immense practice in Edinburgh, but it seemed to me a world too narrow for the exercise of his powers, and I once inquired of a great English doctor how it was that Simpson had never come to London. 'My dear sir,' he replied, with a dry smile, 'he is quite right to stop where he is; there are no coroners' inquests in Scotland.' The Faculty has a large collection of professional jokes, but few, I think, better than this one."

DAMIANA AND HEMORRHOIDS.—Dr. H. Speier, of Belle Plaine, Minn., writes "that he recently prescribed extract of damiana in three-grain doses to two patients, men, who had sexual weakness, the result of excesses. After about two weeks they reported improvement in sexual power, but both suffered from bleeding piles. One patient had had piles slightly years before, the other never had had them. They were both soon relieved after stopping the damiana."

TWINS—THE SECOND BORN IN THE MEMBRANES.—Another case of this kind is reported by Dr. L. R. Dawson, of Seattle, Washington Territory. He writes: "I attended Mrs. A——, native of Ireland, aged thirty, in her fourth confinement. The vertex was presenting in third position, and half an hour after my arrival she was delivered of a large male child, with slight talipes equinovarus of both feet. Ten minutes later, in two "pains," she expelled a medium-sized girl, with membranes entire and both placentæ attached. The child was struggling vigorously within the membranes, which were unusually thick and resisting. The entire labor had lasted but three hours. The uterus did not contract very well, and there was some hemorrhage.

LIVING IN THE FIFTEENTH CENTURY.—There were four ordinary meals, viz., breakfast at seven, dinner at ten, supper at four, and "*liveries*" at eight or nine at night. The latter, as well as breakfast, consisted of beef, mutton, fish, etc., with a few quarts of plain or mulled wine, and beer. Dinner and supper were heavy meals.

FOOD OF THE ANCIENTS.—Camels and dromedaries' flesh, especially the heels, were esteemed. Mæcenas, according to Pliny, delighted in donkey flesh; that of the wild ass was preferred to venison. The wild boar was called *animal propter convivia natum*, and the classical portion of the sow was *vulva nil dulcius ampla*. Plutarch says the gravid sow was actually trampled to death to make a delicious mass "fit for the gods." The *Porcus trojanus* was made by stuffing a pig with birds and various small animals. Fowls were drowned in Falernian wine. Peacocks raised in the island of Samos were sold to the value of £2,000 per year for food.

PRESERVATION OF DEAD BODIES.—Edward I., who died in 1307, was found not decayed 463 years subsequently. The flesh on the face was a little wasted, but not putrid. The body of Canute, who died in 1017, was found fresh in 1766. That of William the Conqueror and his wife were perfect in 1522. In 1569 three Roman soldiers, in the dress of their country, fully equipped with arms, were dug out of a peat-moss near Aberdeen. They were quite fresh and plump after a lapse of about fifteen hundred years. In 1717 the bodies of Lady Kilsyth and her infant were embowelled and embalmed. In 1796 they were found as perfect as in the hour they were entombed. Every feature and every limb was full. The infant's features were as composed as if he had only been asleep for eighty years. His color was as fresh and his flesh as plump and full as in the perfect glow of health; the smile of infancy and innocency was on his lips. At a little distance it was difficult to distinguish whether Lady Kilsyth was alive or dead, for her features and the very expression of her countenance were marked and distinct. The bodies seemed to have been preserved in some liquid, nearly of the color and appearance of brandy. The whole lead coffin was full of it, all its contents saturated with it, and the bodies were tinged with it. This unknown liquid was perfectly transparent, and its taste quite vapid. The bodies were also filled with balm and sage and mint. For many months after the bodies were firm, compact, and elastic. When the flesh was cut into by the surgeon it was found quite firm. The writer does not say how much brandy he had imbibed. If he had been as blunt and truthful as Lady Hamilton, he possibly might have been speechless; or if as credulous as Sir John Pryse, he might have tried to raise the dead.

RAISING THE DEAD.—Sir John Pryse, of Montgomeryshire, married three wives, and kept the embalmed bodies of the first two in his bedroom, one on each side of his bed. Finally his third wife died in 1748, and he applied to Bridget Bostock, of Cheshire, who healed all diseases by prayer, faith, and an embrocation of fasting-spittle, so that her salivary glands were always kept in full employ, to restore his last wife to life. He writes: "Madam, having heard by repeated advices that you have performed many wonderful cures, even where the best physicians have failed; that you restore sight to the blind; hearing to the deaf, and strength to the lame, I write to know whether you can restore the dead to life. Having lately lost a wife whom I tenderly loved, I entreat you to exert yourself in my behalf, that the deceased may be restored to me, and that the late Dame Eleanor Pryse may be raised from the dead. If your personal attendance is necessary, I will send my coach and six, with proper servants to wait on you. Any recompense that you require will be made with the utmost gratitude, and I hope the bare mention of it will not be offensive to you. Yours obediently, John Pryse."

SUPERNUMERARY TESTICLES AGAIN.—The letters which we have published upon this subject have brought out two interesting facts: one is that people with three testicles are not so rare as has been supposed, the other, that the pleased owners of the triple apparatus are in the habit of winning money and other valuables by betting that they can show three testicles.

Dr. C. K. Kelley, of Plymouth, N. H., reports a case in an epileptic, a man whose intelligence was below the medium. "He had won many pounds of raisins on a wager" regarding them. The third testicle was small.

Dr. R. A. Woods, of Seymour, Ind., reports a case in a healthy man, eighty years of age at the time of examination. The third testicle was on the right side and was as large as the other two. The cords of the two right testicles united a short distance from the external opening of the inguinal canal, the cord formed by the union of the two being perceptibly thicker than the opposite one.

DR. ALLBUTT ON GYNECOLOGY.—Dr. Clifford Allbutt, in his lectures on Visceral Neuroses, hits off the gynecologist in a way that is hardly just, but is very amusing. He says: "A neuralgic woman is either told that she is hysterical, or that it is all uterus. In the first case she is comparatively fortunate, for she is only slighted; in the second she is entangled in the net of the gynecologist, who finds her uterus, like her nose, is a little on one side; or, again like that organ, is running a little, or is as flabby as her biceps, so that the unhappy viscus is impaled upon a stem, or perched upon a prop, or is painted by carbolic acid every week in the year, except during the long vacation when the gynecologist is grouse-shooting, salmon-catching, or leading the fashion in the Upper Engadine. Her mind, thus fastened to a more or less nasty mystery, becomes newly apprehensive and physically introspective, and the morbid chains are riveted more strongly than ever. Arraign the uterus and you fix in woman the arrow of hypochondria, it may be for life."

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PRACTICAL HINTS REGARDING THE METHODS OF EXAMINATION EMPLOYED AS AIDS IN THE DIAGNOSIS OF NERVOUS DISEASES.[1]

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(Continued from page 691.)

THE CONDITION OF THE SENSORY NERVES.

BEFORE completing a diagnosis of some forms of nervous disease, it is necessary to investigate the following functions: 1, The condition of the sensory nerves of the skin in respect to the sense of touch; 2, the appreciation by these nerves of varying degrees of temperature; 3, the appreciation by the patient of painful impressions transmitted to the brain by the nerves; and 4, the condition of the special senses of sight, smell, hearing, and taste.

TESTS FOR TACTILE SENSIBILITY.—In this series of tests, as also in those employed to detect abnormalities of appreciation of different degrees of temperature, the following precautions must be taken against error in the results obtained:

1. The *nature of the tests* to be employed must be clearly explained to the patient, as well as the importance of accuracy in his decision respecting the sensations perceived. This insures his intelligent coöperation, and makes the patient more earnest in his endeavors to answer correctly.

2. The *patient must be blindfolded*, in order to avoid any information respecting the tests used reaching him by sight.

3. In order to make the patient keenly alert to avoid errors of statement, it is well to employ *blank experiments* from time to time. Thus, when the skin has not been touched with any instrument or foreign substance, it is well to ask "where the object is now felt," "how many points are now in contact with the skin," etc.

Having explained the objects of the tests about to be employed and then blindfolded the patient, the tactile sensibility of the skin should be first determined by the following methods:

(1) *Consciousness of simple contact impressions.* When the skin is brushed by a hair or a fine feather, notice, first, if the patient perceives the contact immediately, and, secondly, if he can describe the sensation correctly.

(2) *The ability to locate contact-impressions.* With tests of decreasing delicacy (the touch of a hair being the most delicate, and painful impressions the least so), notice to what extent the patient is able to correctly designate the point of contact of the body employed with the skin of different localities.

(3) *The degree of sensibility of different regions.* This has to be investigated with great care in some cases. Several methods are employed to determine it with accuracy. These are as follows:

(*a*) Objects of *different shapes* may be laid upon the skin and the patient requested to describe their form and character. Coins, keys, and weights may be employed for this purpose, as these are always to be had. This test should be used over many parts of the body and the results obtained compared with those of similar experiments made by the physician upon himself or some healthy person.

(*b*) The *appreciation of pressure*, as suggested by Weber, may be tested by placing weights of varying sizes upon the skin of some part, that has previously been supported in order to avoid the so-called "muscular sense" being a factor in the patient's decision. Dr. Beard has devised an instrument for this test that answers all purposes very well.

(*c*) Again, the various forms of æsthesiometers are used to detect the minimum distance which can exist between two points of simple contact with the skin without destroying the distinct perception of both points by the patient. This distance varies in health between extremely wide limits, because some regions are abundantly supplied with sensory nerves and tactile corpuscles while others are not. For this reason, the following measures can be used as the healthy standard for comparison in any given case. They are given in inches, lines, and millimetres so as to meet the requirements of any scale.

FIG. 27.—Beard's Piesmeter. This instrument consists of a spring in a tube that resists pressure made upon the piston. A scale indicates the amount of pressure upon the spring. It is employed to determine the degree of sensitiveness to pressure in different parts of the body. The forehead, tongue, and cheek are the most sensitive to pressure; the least so are the backs of the thighs and legs.

1. Point of tongue	$\frac{1}{24}$	inch	=	$\frac{1}{2}$	line	= 1.1 mm.
2. Palmar surface of finger tips	$\frac{1}{12}$	"	=	1	"	= 2.2 "
3. Mucous surface of lips	$\frac{1}{6}$	"	=	2	lines	= 4.2 "
4. Palm of hand and tip of nose	$\frac{1}{2}$	"	=	3	"	= 6.3 "
5. White part of lips	$\frac{1}{2}$	"	=	4	"	= 8.4 "
6. Lower part of forehead	$\frac{5}{6}$	"	=	10	"	= 21.1 "
7. Back of hand	$1\frac{1}{6}$	"	=	14	"	= 29.2 "
8. Dorsum of foot	$1\frac{1}{2}$	"	=	18	"	= 37.5 "
9. Forearm	$1\frac{5}{8}$	"	=	19	"	= 39.6 "
10. Sternum	$1\frac{3}{4}$	"	=	21	"	= 44.1 "
11. Middle of thigh	$2\frac{1}{2}$	inches	=	30	"	= 62.5 "
12. Back	$2\frac{3}{8}$	"	=	31	"	= 66.0 "

Various forms of æsthesiometers have been devised, but a simple pair of compasses, such as are used by artists, will answer all purposes. The distance between the points can be ascertained by a rule graded in inches, lines, or millimetres. The *points should not be sharp*, as

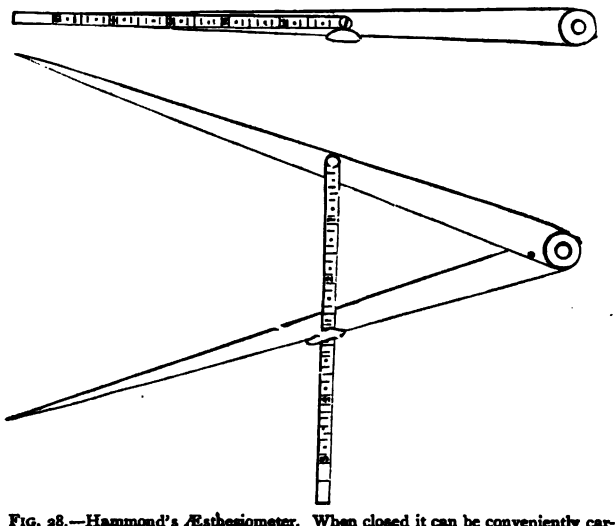

FIG. 28.—Hammond's Æsthesiometer. When closed it can be conveniently carried in the pocket.

[1] This article comprises, in substance, the subject-matter of a course of lectures delivered by the author before a private class of post-graduate students.

they will cause pain if so, and thus defeat the object of this test.

The suggestions previously made respecting the definite instructions to the patient, the use of blank experiments, and the employment of a bandage over the patient's eyes apply to this test as well as to those previously described.

The following rules must be observed in case the æsthesiometer is to be used:

1. The *two points of the instrument must be made to touch the skin simultaneously;* otherwise the patient will detect the two points of contact more readily than if both meet the skin at the same moment.

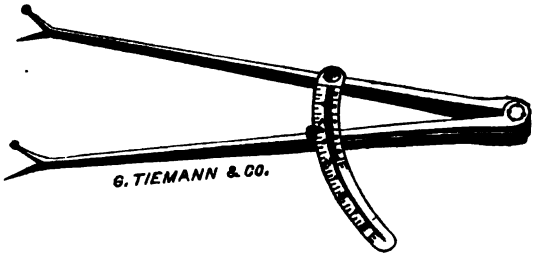

FIG. 29.—Carroll's Æsthesiometer. The instrument has two points upon each leg of the compass, one blunt and the other sharp. It is a convenient instrument to determine the condition of the sensory nerves in respect to contact sensations and those of pain. This is accomplished by simply substituting the blunt for the sharp points, or *vice versa*.

2. The *contact should be a gentle one;* otherwise the impression upon the skin becomes a painful sensation.

3. The *relative position of the two points should always bear the same relation to the axis of the limb or the median line of the body*, because the sensibility of a part is affected differently when the points are directed transversely or longitudinally. This is essential to the accurate comparison of the sensibility of different regions of the body, or of corresponding regions of either side.

4. The table which has been previously given should be employed as a standard of comparison *only when the sensory functions of the skin are impaired upon both sides.* When the derangement is one-sided, the *healthy side* will be the safest guide for comparison.

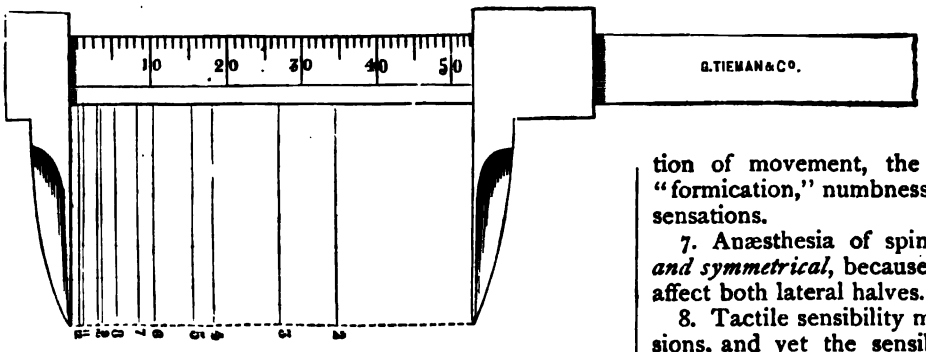

FIG. 30.—Sieveking's Æsthesiometer. A modification of the ordinary beam-compass employed by carpenters, but graded in inches and tenths of an inch. Its points are not sharp.

We are now prepared to consider the significance of the disorders of cutaneous sensibility, viz., anæsthesia or loss of sensibility; hyperæsthesia or increased sensibility; the existence of pain; and the lack of appreciation of varying degrees of temperature.

Anæsthesia.—Certain regions of the body may be deprived of cutaneous sensibility (either totally or partially) (1) by diseased conditions of the brain or spinal cord, and (2) by any abnormal state of the nerves themselves that tends to impair or destroy their ability to conduct sensations to the nerve-centres. In the latter case, the loss of sensation is liable to be associated with an impairment also of motion, because the cerebro-spinal nerves are composed, as a rule, of both motor and sensory fibres. The fact that sympathetic nerve-fibres are also present in the majority of nerves, helps us to explain certain disorders in the nutrition of the skin that sometimes accompany motor or sensory paralysis dependent on injury or destruction of some individual nerve.

The regions of the spinal cord and brain that are *functionally associated with sensation* have been already touched upon. It may be stated in a general way that the nerve-fibres that conduct sensory impressions from the peripheral parts of the body to the brain travel chiefly through the *posterior columns* of the spinal cord and *its gray matter* in order to reach the brain—the seat of intelligent perception of such sensations. Within the substance of the brain itself, these fibres pass through the *posterior part of the so-called "internal capsule"* of that organ. We are justified in drawing the following clinical deductions as regards the existence of cutaneous anæsthesia:

1. Lesions of the *cerebral hemispheres* produce anæsthesia when they involve the posterior one-third of the internal capsule. If the sensory cranial nerves are affected by such a lesion, the loss of sensation is commonly on the same side as the lesion, except in case of the optic nerve (the condition known as hemianopsia). The anæsthesia of parts below the head, if due to cerebral causes, is confined to the side opposite to the hemisphere in which the lesion exists.

2. Anæsthesia from lesions of *one lateral half* of the substance of the spinal cord exists, as a rule, on the side opposite to the spinal lesion.

3. Lesions which involve *both lateral halves* of the spinal cord create anæsthesia on both sides of the body, provided the destructive process affects the so-called "sensory tract" of the cord, viz., the posterior columns, or the gray matter around its central canal.

4. Anæsthesia may exist *on the same side as a spinal lesion*, provided the posterior roots of the spinal nerves be pressed upon or destroyed by it, or in case the sensory nerves be affected by the spinal lesion before they cross to the opposite side of the cord.

5. Anæsthesia, unlike motor paralysis, is not necessarily present in all parts of the body supplied by those nerves that are given off from the cord below the seat of the lesion. Anæsthesia is often associated with a condition of increased sensibility or "hyperæsthesia" of parts below the seat of the spinal lesion, and on the side opposite to it.

6. Anæsthesia may often coexist with other sensory symptoms, such as pain, incoördination of movement, the peculiar sensation known as "formication," numbness, tingling, and other subjective sensations.

7. Anæsthesia of spinal origin is *generally bilateral and symmetrical*, because lesions of the cord commonly affect both lateral halves.

8. Tactile sensibility may be destroyed by spinal lesions, and yet the sensibility to pain and temperature may occasionally be retained. In rare cases, sensibility to temperature may be lost, and the sensibility to pain and touch may be normal. It is not infrequent for the neurologist to record an absence of sensibility to pain, when tactile sensibility remains unaffected, and accurate perceptions of temperature are still experienced by the patient. These subjects can detect a needle thrust into the muscles from a simple sensation of touch. These clinical facts seem to confirm the view that has been advanced by late physiologists,[1] viz., that the paths of

[1] The *lateral* columns (Fig. 21) and the *posterior* columns are probably concerned (as well as the gray substance of the cord in the region of its central canal) in the transmission of sensory impressions to the brain.

Woroschiloff, Ludwig, and Ott have apparently demonstrated by careful and apparently conclusive experiments that, in the lower animals, the *lateral columns* in the dorsal region of the spinal cord are physiologically associated with the transmission of sensations from the legs. Whether this is true of man is not yet determined, although Gower's reported case of [illegible] published cord in man gave evidence of ascending degeneration, both in the posterior internal columns (Goll's columns), and also in the lateral columns, in front of the "crossed pyramidal tract" (Fig. 21). Unfortunately, this case stands alone as yet.

This view is directly opposed to the older one that has been generally accepted by standard authors, viz., that sensations of pain travel along the gray matter of the cord, and those of touch, and perhaps of temperature, pass up the posterior columns of the spinal cord.

conduction of sensations of touch, pain, and temperature probably lie in different parts of the spinal cord.

Hyperæsthesia. The skin may be rendered extremely sensitive in certain diseased conditions. This abnormal state of the nerves is termed "hyperæsthesia" in contradistinction to "anæsthesia" or a loss of sensation.

When the "sensory tracts" of the spinal cord are involved by a localized lesion, the *parts below the regions rendered anæsthetic* (by the cutting of the sensory nerves) are usually affected with *hyperæsthesia.* The cause of this is not yet definitely known.

A narrow band of hyperæsthesia is also developed, as a rule, at the upper level of the spinal lesion. If in the dorsal region, this zone of hyperæsthesia generally encircles the body. When in the lumbar region, it is more or less vertical over the limbs in accordance with the particular spinal segment which happens to be affected.

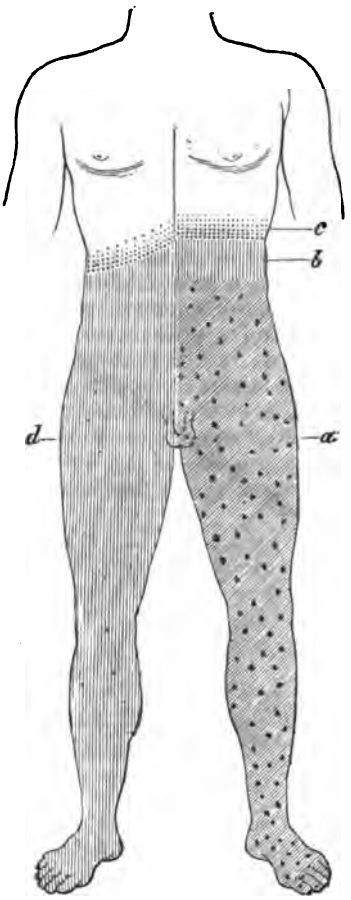

FIG. 31.—Diagrammatic Representation of the Skin Symptoms in Unilateral Lesion of the Dorsal Portion of the Spinal Cord on the Left Side (Erb). The diagonal shading (*a*) signifies motor and vaso-motor paralysis; the vertical shading (*d* and *b*) signifies anæsthesia of the skin; the dotted shading (*c*) indicates hyperæsthesia of the skin.

Hyperæsthesia probably indicates, according to our present knowledge, some *irritation of the nerve-fibres* distributed to the regions so affected. The cut introduced is admirably adapted to illustrate the effects of a one-sided spinal lesion upon the sensory functions of the skin.

In the disease known as locomotor ataxia, after a paroxysm of "stabbing pains" has subsided, the seat of previous pain becomes markedly sensitive to the touch, while the rest of the body is not similarly affected.

Hyperæsthesia may be of service in diagnosis. It may afford valuable information respecting the spinal segments that are *irritated* by some destructive process within adjacent regions of the spinal cord. Again, if limited to the area of distribution of some individual nerve, it may point most suggestively toward the existence of some local cause of irritation of that nerve itself. Finally, Valleix has pointed out the situation of certain regions in the course of the more important nerves of the body where extreme sensitiveness to pressure or touch exists in connection with neuralgic attacks. These are known as the "puncta dolorosa." They have been separately described by the author in his work, "The Applied Anatomy of the Nervous System."

Hyperæsthesia may be functional or organic. If *functional,* it is often due to some form of general spinal irritation; if *organic,* it is commonly associated with more or less anæsthesia. We meet the organic variety chiefly in connection with spinal meningitis, compression of the sensory nerve roots, and locomotor ataxia.

Delayed sensation. To the beginner in medicine as well as to the laity, nothing strikes the intelligence so forcibly as this symptom when well marked. Imagine a patient stuck with a pin, when unaware of its occurrence, and an interval of time (varying from one to thirty seconds) to elapse without any consciousness of the wound. Imagine the patient then suddenly becoming conscious of the injury with all the evidences of pain that should have occurred without any perceptible interval of time in a healthy subject. This is delayed sensation. It occurs chiefly in connection with the disease known as "locomotor ataxia."

This symptom is to be interpreted as an evidence of imperfect conduction of sensation to the brain by means of the sensory nerves and the so-called "sensory tracts" of the spinal cord. The sensation is not arrested "in toto;" it is simply delayed. Complete abolition of sensation or "anæsthesia" is liable to be developed later—when the nerves or sensory tracts are so extensively involved as to be no longer able to perform the functions.

SENSIBILITY TO TEMPERATURE.—In testing this variety of sensibility, the precautionary steps previously mentioned in connection with sensory disturbances must be carefully observed.

Test-tubes holding water of different degrees of temperature are then applied to different regions of the body which have given previous evidences of sensory disturbances, and the patient's ability to discriminate between them with accuracy should be noted. The temperature of the test-tubes should be greater or less than that of the skin (98½°), and of a uniform size. This prevents the confusion of simple "tactile" sensations with those of temperature. Breathing upon the surface of the patient answers as a rough test for the appreciation of heat.

SENSIBILITY TO PAIN.—The tests for this variety of sensibility comprise (1) pinching or pricking of the skin; (2) the application of extreme heat to the skin; and (3) the use of a powerful Faradic current upon the skin with dry electrodes. The patient *should never be prepared for this test,* as he may fail to give external evidences of pain from an assumed fortitude. Sensitiveness to pain and temperature may sometimes be affected when tactile sensations are not impaired.

THE SPECIAL SENSES.—These comprise smell, sight, hearing, taste, and touch. The latter has already been discussed.

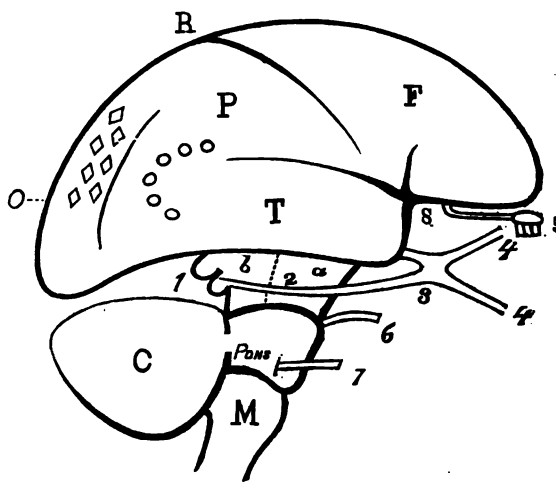

FIG. 32.—A Diagram designed to show some of the Relations of the Optic and Olfactory Nerve-fibres to Surrounding Parts. F, Frontal lobes of cerebrum; P, parietal lobe; T, temporo-sphenoidal lobe; S, fissure of Sylvius; R, fissure of Rolando; O, occipital lobe; C, cerebellum; M, medulla oblongata; 1, corpora quadrigemina; 2, optic tracts; 3, optic chiasm; 4, optic nerves; 5, olfactory nerve; 6, motor-oculi nerve; 7, trigeminus nerve; *a*, basis cruris; *b*, tegmentum cruris. The circles in the parietal lobe represent the *cortical visual centres of Ferrier;* the diamonds in the occipital lobe, the *cortical visual centres of Munk.* The cerebellum and pons Varolii are shown as if separated from the cerebrum, in order to make the relations of the crus to the optic tracts apparent.

The nerves of the first four are connected with the brain. We therefore are liable to encounter abnormalities of these senses in connection with brain diseases, but not with diseases of the spinal cord.

SMELL.—The abolition of smell, or "*anosmia,*" is to be

detected by the following methods: (1) Use the same test upon the nostrils alternately; (2) avoid all irritating substances, such as ammonia, acetic acid, snuff, etc.; (3) employ both agreeable and disagreeable odors (cologne, camphor, musk, etc., on the one hand, and valerian, turpentine, asafœtida, sulphuretted hydrogen, etc., on the other); (4) employ odoriferous substances on the tongue (coffee, wines, cheese, etc.), so that the nose may perceive them by means of the throat, rather as imaginary taste-perceptions than as true olfactory impressions.

The abnormal acuteness of smell, or "*hyperosmia*," may indicate brain disease that creates irritation of the olfactory nerve. Nauseating odors to the healthy subject may become agreeable to such patients. Pleasant odors, such as those of flowers, may cause nausea, headache, or possibly convulsions.

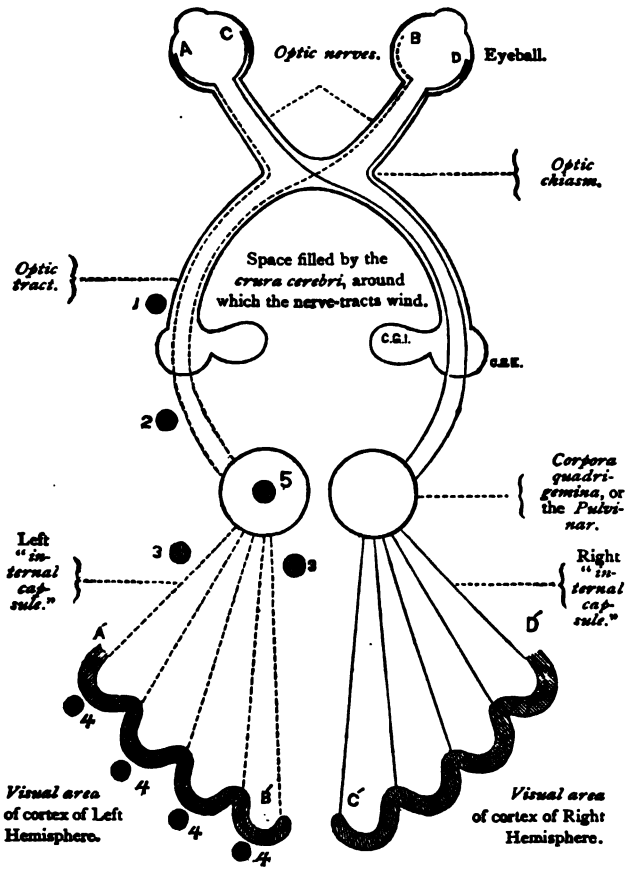

FIG. 33.—A Diagram explicative of Hemianopsia. The dotted lines (A and B) indicate the fibres associated with the left cerebral hemisphere. Those of the right hemisphere (C and D) appear as unbroken lines. Both will be seen to pass from the retina through the following parts: 1, the optic nerves; 2, the crossing fibres through the optic chiasm; 3, the optic tracts; 4, the external geniculate body; 5, the corpora quadrigemina or the "pulvinar" of the optic thalamus; and 6, the internal capsule. The fibres are shown to end in the cortex of the occipital lobes. A lesion situated at the points designated as 1, 2, 3, 4, and 5, will cause crossed homonymous hemianopsia. Lesions of the *right hemisphere* of the cerebrum produce blindness of the *right half* of each eye, and *vice versa*.

Anosmia has been observed to accompany a congenital defect in the olfactory nerve, Bell's paralysis, tumors at the base of the brain, absence of the pituitary body, syphilitic disease of the nose, hysteria, insanity, paralysis of the fifth cranial nerve, meningitis, typhoid fever, injuries to the nose or skull, and nasal catarrh.

Hyperosmia is commonly met with during convalescence from some exhausting disease, and in connection with hysteria, insanity, meningitis, tumors of the frontal lobes, softening of the brain, epilepsy, and adhesions of the olfactory bulbs to the dura mater.

SIGHT.—In connection with vision, the neurologist is chiefly called upon to detect the following conditions: (1) Paralysis of the eye-muscles; (2) the Robertson pupil; (3) the condition known as "hemianopsia;" or less correctly, "hemiopia;" (4) the condition of the retina known as the "choked disk;" (5) the conditions known as "amblyopia" and "amaurosis."

Paralysis of the eye-muscles. The attitudes assumed by the patient as a result of defective power in some of its muscles have been discussed in the second portion of this article. These are described more fully in the author's work previously referred to.

Hemianopsia. This condition is characterized by a *blindness of one lateral half of each eye;* the unaffected half of each eye retains its power of sight. The forms of this condition that are observed and the tests employed to detect it have been referred to already.

Choked disk. This condition is also known as a "neuro-retinitis," because the optic nerve and retina both participate in the changes that ensue. It has been discussed already in this article, and more fully described in a paper on the corpora quadrigemina (see MEDICAL RECORD, August 18, 1883).

Robertson's pupil. This condition is characterized by *extremely small* pupils that contract for the focusing of vision upon near objects (within a radius of twenty feet), but do not respond to varying degrees of light. The tests employed to determine this point have been previously mentioned in the second section of this article.

Amblyopia and amaurosis. These terms are commonly used to cover all the various conditions of blindness where no organic changes in the eye itself can be seen to account for them. The term "amblyopia" is frequently used to denote a mild degree of "amaurosis."

The more common causes of these two conditions comprise (1) poisons, such as lead, tobacco, and urea; (2) exposure to a prolonged glare, as in snow-blindness; (3) concussion of the eye; (4) irritation of the fifth cranial nerve, as in severe neuralgia; (5) certain brain diseases. The latter are of special interest in this connection. The following diagrams may prove of aid in explaining certain anatomical points that bear directly upon the subject.

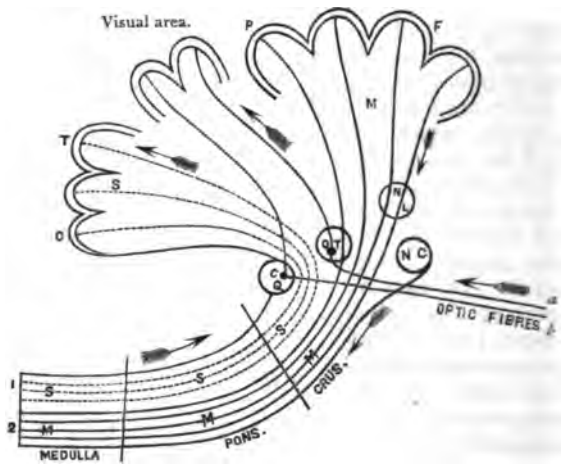

FIG. 34.—A Diagram designed to show the General Course of Fibres in the "Sensory" and "Motor Tracts," and their Relation to Certain Fasciculi of the Optic Nerve-tracts (modified from Seguin). S, Sensory tract in posterior region of mesocephalon, extending to O and T, occipital and temporal lobes of hemispheres; M, motor tract in basis cruris, extending to P and F, parietal and (part of) frontal lobes of hemispheres; C Q, corpus quadrigeminum; O T, optic thalamus; N L, nucleus lenticularis; N C, nucleus caudatus; 1, the fibres forming the "tegmentum cruris" (Meynert); 2, the fibres forming the "basis cruris" (Meynert); *a*, fibres of the optic nerve which become associated with the "optic centre" in the optic thalamus, and are subsequently prolonged to the "visual area" of the convolutions of the cerebrum; *b*, optic fibres which join the cells of the "corpora quadrigemina," and are then prolonged to the visual area of the cerebral cortex.

The first diagram (Fig. 33) shows that the optic nerve-fibres eventually pass to those regions of the gray matter on the surface of the brain (the cerebral cortex) that are associated with the intelligent perception of the images focused upon the retina. But it will be also observed that the optic nerve-fibres (*a* and *b*) first pass through certain collections of gray matter or "centres" within the optic thalami and the corpora quadrigemina before they radiate to the so-called "visual area" of the convolutions. Between the "visual area" and the "centres" designated in the diagram as pertaining to sight-perceptions, the optic nerve-fibres traverse what is known as the "internal capsule" of the brain.

Let us now compare the preceding diagram with another which will make some of these statements more intelligible to the general reader. It will help to explain why it is that pressure upon the "optic tracts," as they are called, causes hemianopsia or blindness of one lateral half of each retina; while injury to or destruction of the visual area of the convolutions of the internal capsule of the brain causes amblyopia or amaurosis of the opposite eye.

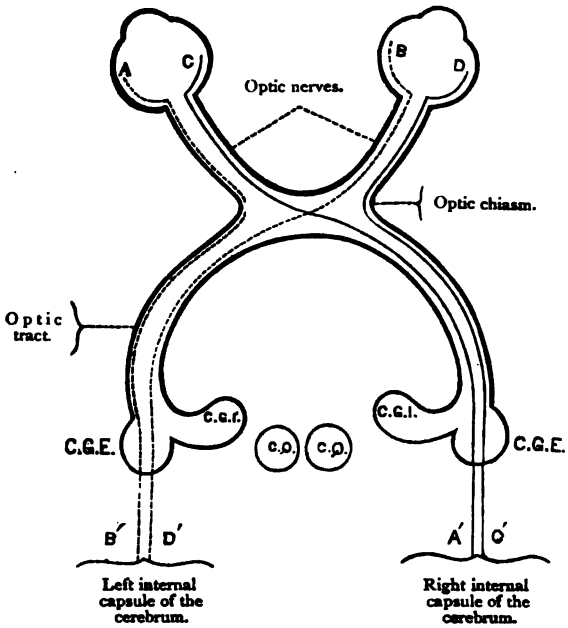

FIG. 35.—A Diagram designed to show the Course of Fibres within the Optic Nerves, and some of the more Important Relations of the same. A, B′ and D, C′, fibres which do not cross at the chiasm, but probably do at the corpora quadrigemina; C, A′ and B, D′, fibres which do decussate at the chiasm. The relation of these fibres to the "internal capsule" of the cerebrum is also shown. This portion of the cerebral hemisphere is shown to be in relation with the fibres distributed to both eyes; hence, lesions within it tend to produce "crossed hemianopsia." The relation of bundles within the chiasm is made apparent. The fibres of the chiasm which connect the two eyes directly (inter-retinal fibres), and those which connect the two cerebral hemispheres directly (inter-cerebral fibres), are not shown, because they have no bearing upon symptoms, even if their existence is to be considered as demonstrated.

The author would refer those readers who are desirous of further information upon this subject to his article upon the "Corpora Quadrigemina" in THE MEDICAL RECORD of August 18, 1883.

TASTE.—This special sense is presided over by the gustatory branch of the fifth cranial nerve, the glossopharyngeal nerve, and the chorda tympani branch of the facial nerve. Taste may be affected, therefore, by any diseased condition that can cause either irritation or destruction of the fibres of these nerves. Certain functional diseases, in contradistinction to organic lesions of the brain, may also cause modifications of taste.

An abnormal sensitiveness of taste is known as "*hypergeustia.*" It may be developed in connection with hysteria; with melancholia and some other types of insanity; and with facial paralysis of rheumatic origin. Such subjects can often detect extremely small quantities of sapid substances in solution, which in health would be unperceived. They may perceive gustatory sensations when the electric current is applied over the spine in the region of the neck or upper dorsal vertebræ. They may develop a loathing of certain dishes which have previously been their delight, from some imaginary taste of a disagreeable character. Again, this condition may express itself in an unnatural enjoyment of food. Finally, sweetish, sapid, or sour tastes within the mouth may be constantly present.

A loss of the sense of taste is known as "*ageustia.*" It may be complete or partial. Some regions of the tongue may be affected and others retain the sense of taste. In some instances, the tongue may be sensible to certain substances, and insensible to others. It may be associated with a sense of burning and bitterness within the mouth, as in a case reported by Böttcher, where a tumor at the base of the brain was its exciting cause.

This abnormal state has been observed to follow the development of tumors of the brain or its coverings; paralysis of the fifth cranial nerve; sclerosis of the medulla oblongata; injuries to the glosso-pharyngeal nerves; atrophy of the nerves associated with taste; and ear disease causing pressure upon the chorda tympani branch of the facial nerve.

HEARING.—The mechanism of the ear is so complicated that defects in hearing are commonly due to some abnormal condition of the apparatus itself, rather than of the nerve of hearing or the brain. Perhaps the most reliable test to determine the presence of the latter condition is the employment of the tuning-fork. If this instrument be set in vibration and applied to the teeth, or bones of the skull, the transmission of the sound-waves through the bones will enable them to reach the nerve-filaments of the internal ear and afford the patient perceptions of sound. If the patient is unable to perceive sound when thus conducted to the nerve-filaments, it is strongly suggestive of some diseased condition within the cavity of the skull.

In closing this article, the author feels that he has perhaps overtaxed the patience of his readers. If he has erred in this direction, it is because he has endeavored to cover a large field within the limited compass of a single article, and to so interpret the symptoms of nervous diseases as to bring them within the grasp of the general practitioner of medicine. It must not be inferred that all of the tests described are of necessity demanded in each individual case that is brought to the notice of the neurologist. As Gower happily remarks, "To know our enemy is, if not 'half the battle,' at least an important part of it." When once the symptoms of nervous diseases have been thoroughly mastered, the special lines of investigation demanded in each case become as clearly defined as does the course of his vessel to the mariner, to reach the harbor for which he steers. This article gives but the rough outlines of a chart in which the short cuts to valuable information in diagnosis are imperfectly jotted. Arduous and persistent labor on the part of each of its followers can alone fill in its details and render it complete.

ON FOERSTER'S METHOD OF ARTIFICIALLY RIPENING CATARACTS.[1]

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IT is generally admitted that a cataract, in order to be successfully operated upon, must be mature or ripe. The connection of the lens and its capsule is very slight at this time, and its escape after the opening of the latter is more or less complete. If any cortical matter remains it will, being opaque and having undergone certain retrogressive changes, soften rapidly and become eventually entirely absorbed. The process is very different if parts of the lens are still clear or imperfectly opaque. These portions are not yet loosened from the capsule, and will remain adherent to it after the removal of the cataract. Shortly after the operation they undergo decided changes; they swell, and will not only interfere with vision if they are centrally located, but they exert pressure upon the iris and cause an inflammation of it, which may subsequently lead to the loss of the eye.

The rule is, therefore, not to operate unless the cataract is perfectly ripe. This is usually easily diagnosed by the absence of any clear portions of the lens, which would give the cataract a mottled opaque appearance or show itself by a glistening mother-of-pearl-like look of it, or by a broad dark shadow between the pupillary edge of

[1] Read before the Medical Society of the State of New York, February 6, 1884.

the iris and the lens; the latter indicating the presence of clear lens substance between the anterior capsule and the nucleus. If the lens is ripe it is uniformly opaque, and no red reflex of the fundus of the eye can be seen with the ophthalmoscope, even after the dilation of the pupil by a mydriatic. If left to nature this process may be completed in four or eight months after the first sign of a lenticular opacity; but in some cases it may take many years before the cataract is ready for an operation. As long as one eye alone is affected this is only a matter of inconvenience, but if both eyes are attacked simultaneously, or if the patient is going to localities where an operation could not be performed, or if he has only one good eye left and this is obscured by opacities of the lens, it becomes at once a matter of great importance. The hastening of the process may prevent years of blindness and relieve not only the patient, but also his family, from great distress.

If a perfectly healthy lens is injured it will, as a result of this accident, become opaque; a traumatic cataract will be the result. Acting upon this well-known fact, several operators have attempted to hasten the maturing of a cataract developing very slowly, by puncturing the lens-capsule with a needle. But unfortunately this is not devoid of danger; the lens may become dislocated, or swelling of the cataract and severe inflammation may be the result, or what is more frequently the case, the effect of the puncture is unimportant and evanescent; the ripening of the cataract is but slightly hastened. This operation has been resorted to by only few surgeons.

Another plan to accomplish the same purpose has lately been advocated by Professor Foerster, of Breslau, whose experience in this line has been very extensive. He had observed, like several other operators before him, that after a preliminary iridectomy the opacity of the lens would sometimes rapidly increase. He advises, therefore, to make a preliminary iridectomy in the direction in which we intend to extract the cataract, which is usually in an upward one. The lens will now, after the escape of the aqueous humor, fall forward and come in contact with the posterior surface of the cornea, a condition which must be necessarily associated with a certain amount of traction on the suspensory ligament of the lens and the ciliary body, and it has been inferred that this might be the cause of a more rapid increase of the cataract. If the cornea is rubbed with a hard but smooth substance, so as not to injure it, either in a circular manner or by stroking it from the centre toward the periphery, as Dr. Foerster recommends, great changes may be brought about in the opacity of the lens, for as long as the lens is in contact with the cornea any pressure exerted upon the latter must also be felt by the former, and may therefore lead to a certain amount of disturbance of its anatomical arrangement, especially if some opacity of the anterior cortical matter is already present.

The effect of this manipulation may be so decided that a partly opaque lens can be transformed into a ripe cataract within a few days. But such rapid changes are only exceptional; it takes usually more than four or six weeks to accomplish it. The cause of this change is supposed to be a disturbance of the anatomical arrangement of the lens-fibres, or as others have expressed it, a direct crushing of them. It strikes me, however, that pressure sufficient to do this would lead necessarily to a rupture of the delicate suspensory ligament. We might explain it, however, in the following way: Professor O. Becker, in his recent researches on the anatomy of the healthy and morbid lens, finds that the very first step in the development of a senile cataract is the *formation of spaces or clefts between the lens-fibres*. They are formed by the normal shrinking of the fibres and the collection of the nutrient fluid. The presence of the latter will now, by abnormal diffusion, lead to disturbance of nutrition, to swelling of the surrounding fibres, and to further cataractous changes. By pressure on the lens the fluid of these spaces will, *acting as a wedge*, be easily forced between the fibres of the surrounding clear portions of the lens and thus *lead to an opacification of them*. This explains why in the rubbing of a perfectly clear lens or of a cataract in which only the nucleus becomes opaque and hard, the cortical substance remaining perfectly clear, no effect whatever is produced. In very old people with hard lenses this manœuvre is of course less effective than in softer ones.

This operation has also been called a trituration, or as Dr. Noyes prefers to call it, a massage of the lens. Foerster, who has done this operation more than two hundred times, considers it devoid of great danger; he does not even report any complications or inflammatory sequelæ. If such a result could always be obtained, a very valuable operation would be added to ophthalmic praxis, especially as it tends to simplify the final extraction of the cataract by removing the source of great dangers to the ultimate success. By performing the iridectomy some time in advance of the extraction we are doing away with all annoying hemorrhage into the anterior chamber, and iritis is not so apt to occur in the course of the healing process.

But the question is, Is this operation devoid of great danger, or must it be used only in certain exceptional cases and with great care? As this operation is comparatively new, the results which other surgeons have had with it are of the greatest importance. In a very able paper on this subject by Professor H. D. Noyes, which was published in THE MEDICAL RECORD August 4, 1883, he closes with the remark that the moderate experience thus far collected indicates that this operation merits further trial.

The object of my paper to-day is to give you the result of my experience, which is unfortunately not quite so favorable as that of Dr. Foerster, nor is it as good as that of Dr. Noyes, who out of eight cases had twice severe iritis as a sequel to the operation. I have thus far made twenty operations of this kind during the last fifteen months, and have observed three times very serious complications, and in one of these I fear it led even to the loss of the eye, as purulent iritis and panophthalmitis developed (see Case II.). Even if we admit that very severe complications may follow a simple iridectomy, or that a perfectly normal cataract extraction may be followed by irido-cyclitis and loss of the eye, yet the large number of inflammatory conditions of the iris that have been observed by Dr. Noyes and myself indicates the dangerous nature of the operation. A mild form of iritis, lasting about a week and resulting in a few fine thread-like posterior synechiæ, was observed in eight eyes. In the remaining nine cases no bad effects of the operation were observed; the healing process was good and short, and some of the patients could leave the bed on the second, and the hospital on the third or fourth day; they required no after-treatment, except an application of a mild solution of atropine and warm compresses twice a day as long as there was any ciliary injection; this disappeared entirely about the eighth or tenth day. Considering that the operation was always done very carefully, and that thorough disinfection of the instruments as well as of the eye was conscientiously observed, the great number of complications is very striking; but this has also been the experience of other operators besides Dr. Noyes and myself, and I know of the loss of two eyes after this operation, which had been done by very skilled and careful surgeons.

Why should there be so much danger to the iris and to the ciliary body in this procedure, so much more than in an iridectomy for corneal opacities, for instance? I think this depends partly upon the condition the eye is in at the time of a developing cataract, but especially upon the nature of the operation, namely, the rubbing of the cataract and the amount of pressure needed to affect the lens sufficiently. It is well known that with the formation of a cataract a certain amount of swelling of

the lens is observed which may lead to a marked narrowing of the anterior chamber. This condition is also the reason why an iridectomy for glaucoma with a narrow anterior chamber is so much more dangerous and difficult to make than an ordinary iridectomy. Under these circumstances the use of a narrow cataract-knife for making the corneal section is preferable, but the use of such a knife is dangerous for two reasons: its point may encroach upon the ciliary region at the time of making the counterpuncture, or the knife may press upon or injure the swollen lens. For these reasons the section should not be made too peripherally and the knife should not be too flexible. Another danger is that during the rubbing of the lens the iris is so apt to be caught between the cornea and cataract. Even if this manœuvre be limited to the pupillary space, as has been proposed by Drs. Noyes and Gruening, there is still considerable danger on this account. As soon as pressure is made upon the cornea the iris will usually retract from the point of pressure, and yet it will be caught at times. In order to exert any influence upon the cortical matter of the lens, the pressure has to be pretty decided. This, as well as the fact that the lens during the manœuvre is pressed back and allowed to come forward again, explains that the suspensory ligament as well as the ciliary body to which it is attached may suffer from the operation. Even a rupture of the ligament and a dislocation of the cataract may be brought about, which would lead to very serious inflammation or cause a prolapse of the vitreous humor at the time of the final extraction of the lens. In order to avoid these dangers the pressure exerted upon the cornea should be moderate but permanent, thus preventing the lens from moving to and fro; this will also lessen the chances of injuring the iris. The trituration should be done by a rotatory movement only, and be limited to the space of the normal pupil and the newly made coloboma. A rubbing or stroking motion from the centre to the periphery of the lens, as Dr. Foerster recommends, appears to me very dangerous, because the pressure at the periphery is very apt to injure the suspensory ligament, and because this manœuvre does not give us a steady pressure. This is especially the case if the instrument used for the trituration is elastic, as this would make it very difficult to judge about the amount of pressure made, and because the pressure cannot be a steady, uniform one. For these reasons a strabismus hook, using the back of it as originally recommended by Dr. Foerster, is a much safer instrument than an elastic rubber spoon or spud. In order to enlarge the area for the movement of the instrument and to lessen the danger of iritis, the iris may be brought under the influence of a mydriatic in order to dilate the pupil. The use of atropine is also necessary for some time after the operation.

The indications for the performance of this operation, as you will see by the following cases, have been, in the first place, simultaneous formation of cataracts in both eyes; both advancing very slowly, but at such an even pace that both eyes became useless for any practical purposes, and were likely to remain so for quite a length of time without any chance of maturing soon. This was the case in thirteen patients for whom fifteen triturations of the immature cataracts were made.

The second indication was the loss of one eye, either the result of an injury or an unsuccessful operative interference, in two patients, the remaining eye showing lenticular opacities which progressed very slowly.

The third cause was in one patient an incurable disease of the one eye, an old detachment of the retina, which could not be improved by treatment and left the patient with very poor vision, the other eye being affected with an old but not complete cataract.

To the fourth class belong two patients who came from a great distance and could not well afford to return, and if they had returned it would have been perhaps only to find that the cataracts were not yet ready for an operation.

Method of operating.—I would recommend that the following rules be observed as strictly as possible: The eye should be brought fully under the influence of a mydriatic before the operation. Ether must be given to produce profound narcosis. A narrow cataract-knife, which is not too thin or elastic, should be used to make the corneal section. The iridectomy must be moderately large and peripheral, but it must not encroach upon the ciliary region. The trituration of the lens should be confined as much as possible to the pupillary space, and is to be done with a smooth, unyielding instrument; the convex side of a strabismus hook is as good as anything. It must be done in a rotatory manner; it is not to be interrupted if possible, and should be completed in a minute or two.

After-treatment.—After a thorough cleansing and disinfecting of the wound and conjunctival sac by means of a concentrated solution of boric acid, atropine is to be instilled. Both eyes are to be bandaged, and the patient must be kept in bed for a few days until the wound is healed. If no pain or other signs of inflammation are present the bandage may be removed and the patient allowed to sit up. The last traces of injection around the wound will disappear in about ten to fourteen days.

Results.—The time intervening between this operation and the complete ripening varies considerably; it depends on the extent of the opacity, the nature of the cataract, and the amount of pressure employed. In order to be successful there must be some opacity of the anterior cortical matter at the time of the operation. Posterior polar and other forms of cataracts, in which this is not the case, are therefore not benefited by the operation. Some of my patients could be and were operated upon as early as twenty-five or thirty days after the trituration of the lens. At times very decided changes in the extent of the opacity could be seen a few days after the operation, but as a rule it takes from four to ten weeks for the ripening of the cataract. Age or sex does not seem to have any marked influence in this.

In two of my cases (Cases XIV. and XV.) the operation was not successful. These were cases of a posterior polar and an anterior polar or capsular cataract; in both of them no perceptible change was produced.

Final extraction of the cataract.—This, as I should judge by my limited experience, is not only simplified, but it is also less dangerous than the usual operation.

Of my twenty cases two were not advanced by the operation on account of the nature of the cataract; three eyes were so injured by subsequent inflammation that nothing in the way of an operation has been done so far, and three of the operations have been done so recently that the cataracts are not yet ready for an operation. In the remaining twelve cases the modified linear extraction has been singularly free from serious complications; only in one of them was there any loss of vitreous humor, and only in four cases was there any iritis during the after-treatment. In one case maniacal manifestations of the patient led to great exposure of the eye, but the result was nevertheless very favorable. In two patients keratonitis had to be done, and in two or three more this may become necessary. Capsulotomy was mostly peripheral, and the amount of vision obtained varies from $\frac{5}{\infty}$ in the worst to $\frac{20}{11}$ in the best eye.

I would like to say, finally, that the operation is evidently not without danger, and should not be resorted to too freely.

CASE I.—Ph. H——, Cuban; aged fifty-one years; painter. O. D., cataracta immatura; O. S., cataracta incipiens. The right eye became impaired nearly two years ago, and for the last four or six months the left eye has been gradually losing, so that he is not able to attend to his business. His means do not allow him to remain in New York for more than two or three months, and as he has nobody to travel with him he is very much disappointed that he cannot be operated upon at once. Right eye shows distinct shadow of iris on lens, and several sectors of the

latter appear semitransparent after the use of atropine. Trituration of lens with strabismus hook after iridectomy November 20, 1882; slight iritis and two fine posterior synechiæ; leaves his bed on the fourth day after the operation and returns after five weeks, which he spent visiting friends in this State. Cataract extraction December 27, 1882; perfectly normal; only very slight iritis, which subsided promptly after using a sixteen-grain solution of atropine. V. = $\frac{20}{xxx}$ with + 9 D two weeks after operation.

Case II.—Henry H——, aged sixty-five years; American; no business. O. D., cataracta calcarea, result of a very old injury; O. S., cataracta immatura. For more than ten months the sight became affected and has been getting poorer, but has changed only slightly in the last few months. Is very tired of his condition. Trituration of lens January 15, 1883; iridectomy small; used Dr. Wecker's hard rubber spatula; marked iritis. Cataract extracted March 29th; healing normal; V. = $\frac{20}{c}$; pupillary exudation.

Case III.—Andrew H——, aged forty-three years; American; farmer. O. U., cataracta immatura. Patient has been gradually losing his sight for the last five years; came to the city about a year ago, but the cataracts were not ripe; no sugar or albumen in urine; no family or specific history; has always been well. Both cataracts are about evenly developed, both showing clear peripheral portion of lens. V. = fingers at 10′. Trituration without ether, with hard rubber spatula. Patient feels perfectly well after operation and remains up the entire afternoon, and retires feeling splendidly. The next morning intense pain in eye, wound not closed; purulent infiltration of surrounding portion of cornea. The inflammation increasing steadily, I applied the second day six leeches to temporal region, but the process advances steadily, and after four weeks patient returns home with a subacute purulent irido-cyclitis, and has not been heard of since.

Case IV.—Captain C——, aged fifty-five years; American. O. D., cataracta immatura, V. = finger 6′; O. S., cataracta immatura, V. = finger 12′. Patient has been under observation for nearly two years, but the process has been advancing very slowly. Is in the liquor business, and has been using atropine for several months in order to be able to get around. Trituration of lens March 15, 1883; no ether; done at office; patient returns home and recovers entirely in three days without iritis. Lens now becomes rapidly opaque, and extraction is made on May 3d; no ether; no complications, and recovers without suffering any pains. Ultimate vision, $\frac{20}{xx}$ with + 10 D.

Case V.—Mary P——, aged seventy years; Irish. O. D., cataracta immatura; O. S., cataracta incipiens centralis. Patient is very much depressed because the left eye begins to fail rapidly. V. = $\frac{20}{c}$. The right eye has been blind for a long time, as she says. Is perfectly blind when she is exposed to sunlight. Trituration of right lens, which shows large, glistening sectors, June 6, 1883; slight iritis and several fine synechiæ; operation August 22d; normal; slight iritis sixth day; prompt use of a sixteen-grain solution of atropine relieves it, but recovery slow; some pupillary exudation and slight raising of pupillary space. V. = $\frac{15}{cc}$.

Case VI.—Frances M——, aged sixty-one; Irish. O. U., cataracta immatura. The right eye is a little more advanced than the left; has been nearly blind for several months and had poor sight for nearly two years. Both eyes clear sectors. V. = finger at 8′. Trituration of right lens June 26, 1883; no complication; recovers rapidly. Final extraction some time in August; entirely normal; slight capsular opacity. V. = $\frac{20}{c}$ with 9 D.

Case VII.—Mrs. B——, aged seventy-nine years; American. O. D., had an extraction, but vision is very poor—fingers at six feet. O. S., cataracta provecta—fingers at five feet. Some parts of lens less opaque than the rest. Patient has marked idiosyncrasy for atropine, and only a drop applied to the eye sets up marked conjunctivitis and erythema of face resembling erysipelas. Trituration June 28, 1881; small iridectomy; atropine not tolerated; duboisin acts exactly like the former; very severe iritis. Extraction, October 2, 1883, is followed by very severe iritis; recovery very slow. Some pupillary exudation. V. = $\frac{5}{cc}$.

Case VIII.—Jos. C——, aged thirty-five years; Italian. O. D., cataracta mollis immatura; O. S., cataracta incipiens centralis (well-marked shadow of iris). The right eye blind six months; the left eye very poor for four weeks, rapidly getting worse; has to be on the street all day, and is very much troubled about his eyes. No albumen or sugar in urine. Trituration very carefully O. D., no complications, July 5, 1883. Extraction September 6, 1883; soft cortical matter left in capsule after removing a good deal by rubbing eye with lids and thumb; some iritis on seventh day; pupillary exudation. Needled October 2d. V. = $\frac{20}{cc}$.

Case IX.—J. M. B——, aged fifty-nine years; American. O. U., cataracta immatura; has not been able to work as an engineer for more than six months; is poor and cannot afford to lose more time. Sight began to fail in both eyes about the same time, but right eye is much better. Trituration of left lens July 12, 1883; iritis follows and several synechiæ have formed. Extraction September 9th; recovery very favorable. V. = $\frac{20}{xl}$ with + 11 D.

Case X.—Nicholas T——, aged fifty-two years; Irish. O. D., cataracta immatura; O. S., cataracta incipiens centralis. Has been affected on right eye for more than three years; left eye only recently. Could not drive his cart on bright days. Trituration of right lens July 26, 1883; no complication. Cataract removed August 23d; normal; slight iritis later. V. = $\frac{20}{l}$ with + 10 D.

Case XI.—Mary D——, aged sixty-two years; Irish. O. D., cataracta immatura; O. S., cataracta incipiens centralis. The right eye has been blind since Christmas, 1882; the left one practically so; especially on bright days she cannot venture out of the house. She has always been a very busy woman and has to attend to the wants of a large family. Right eye has a very marked mother-of-pearl appearance; projection good. Foerster's operation July 26, 1883, under ether; elastic hard rubber spatula is used, stroking the lens freely; moderate amount of iritis, lasting nearly two weeks. Extraction September 10th, nearly two months after the trituration. Lens perfectly opaque, cortical matter pretty soft; corneal section small and nucleus large; section enlarged with scissors; slight escape of vitreous. Severe iritis following, the pupil becomes occluded; refuses to have another operation to tear the obstruction. Perception of light prompt.

Case XII.—Theodore C——, aged fifty-seven years; German. O. D., cataracta immatura; O. S., cataracta immatura. Both eyes became dim two years ago, and for the last two months the patient has not been able to go out alone. The right eye sees fingers at 8 feet, left eye at 12 feet. Patient is a grocer, and his business suffers so much that he is very depressed and anxious to take the chances of hastening the ripening process. Trituration of lens of right eye August 10, 1883; no iritis; rapid recovery and final operation four weeks later; no complications, healing process normal; slight capsular opacity in several places, which was not noticed before the operation; iritis may be the result of the pressure at the time of the trituration. V. = $\frac{20}{c}$ with + 10 D.

Case XIII.—Theodore C——, aged fifty-seven years; German. Same patient as Case XII. By request the left eye is subjected to Foerster's operation September 28th, just three weeks after the extraction of the cataract of right eye. Trituration with iris forceps. Slight iritis follows, but in three weeks the eye is free of injection, and the final operation is made October 25th, one day less than four weeks after the first one. Large corneal section; slight iritis on seventh day, which is, however, promptly relieved by a sixteen-grain solution of atropine

used morning and evening, and by the application on two consecutive nights of two leeches each time. Some fine capsular striæ. V. = $\frac{20}{100}$ with + 10 D.

CASE XIV.—Joseph M——, aged fifty-two years; German. Patient has a pretty large posterior polar cataract on the right eye, which interferes with vision considerably. The left eye has a traumatic anterior capsular cataract, which makes the eye practically blind. Trituration of the left lens October 6, 1883. Recovery rapid and without inflammation; is able to leave the infirmary on the third day after the operation. No change in the lens three months later.

CASE XV.—Joseph B——, aged thirty-four years; Italian. Detachment of retina. O. S., field of vision very small, down and outward. Has been under treatment for this trouble but no permanent benefit has been gained. Right eye shows an old but imperfect cataract, with posterior synechiæ; projection moderately good. No albumen or sugar in urine. Trituration November 1, 1883, with hard rubber spoon in the usual manner. Slight iritis. Final operation November 28th; normal; nucleus small; much soft cortical matter remains in capsule. A slow iritis sets in on eighth day. January 4, 1884, V. = $\frac{8}{200}$. Can be improved by another operation.

CASE XVI.—Captain C——, aged sixty years; Greek. O. D., cataracta immatura; O. S., cataracta immatura. The right lens is more opaque than the left one, but not ready for an operation. He is very anxious to recover his vision, and readily submits to Foerster's operation, which was made November 1, 1883. Patient is hard to get under ether, and struggled after the section had been made, so that the operation had to be discontinued until the ether took more effect. Some blood in anterior chamber; trituration with a hard rubber spatula. On the next day severe pain set in; wound had not healed by first intention; its edges are infiltrated, hazy, and lens rests almost against cornea; well marked ciliary injection and hemicranial pain. Leeches, atropine, and quinine used freely. Patient very restless. Had chronic dysentery two years ago for a long time, and is slightly debilitated on account of it. Leaves hospital three weeks after operation in a pretty comfortable condition, but returns in about a week with a severe relapse of the iritis. There is some cyclitis, and after several weeks the patient leaves again with a mild form of irido-cyclitis. Promises to return, but has gone to Europe since, so that the final result cannot be given.

CASE XVII.—S. W. H——, aged seventy-three years; American. The right eye is small, phthisical after a cataract operation performed in some place in New Jersey three years ago; it is of course perfectly blind, but not painful to the touch. The left eye has been useless on account of a cataract for the last two years, but it is not yet ready for an operation on account of sectors in the lens. Patient says he could make a good living if he could see, but is now dependent upon the charity of others. Foerster's operation made November 1, 1883. No reaction of any consequence followed, and the patient is able to leave the New York Eye and Ear Infirmary on the fourth day after the operation. Extraction of the cataract on December 1, 1884. No complication at the time of the operation nor during the healing process, and patient leaves the hospital on the twelfth day after the operation, and has now V.= $\frac{20}{xx}$ with a sphero-cylindrical glass.

CASE XVIII.—Joseph M——, aged fifty-two years; German. Patient had left eye triturated without much benefit for a capsular opacity (see Case XIV.). The right eye has a large posterior polar cataract and choroidal changes, but both perception of light and projection are good. Trituration with hook November 7, 1883, about a month after the operation on left eye. No complications at the time of operation, nor during the healing of the wound. Eye soft, and corneal section very difficult. January 15, 1884, no change in appearance of lens.

CASE XIX.—Johan J——, aged seventy-one years; German. The right eye was seen by me at the New York Eye and Ear Infirmary about eighteen months ago, and the diagnosis of a pretty well advanced cataract was made at the time; the left eye showed some peripheral opaque striæ. He returns to the institution with the left eye much obscured by the further development of the cataract. The right eye has been useless for nearly a year, but is not ripe for an extraction; a well-marked shadow of iris, and parts of different or rather imperfect opacity can be distinctly seen. Made a Foerster's operation on January 10, 1884, with horn spoon, rotatory motion. Patient leaves hospital on fourth day, having had but a slight pain on the day after the operation. No synechiæ. February 1st, the lens is more uniformly opaque and nearly ripe, except at extreme periphery, which can be easily seen through the coloboma. Hope to be able to operate in two weeks.

CASE XX.—Joseph C——, aged thirty-two years; Italian (see Case VIII.). The left eye, which was operated upon September 6, 1883, has a vision of $\frac{20}{L}$ with a + 10 D. In October it was only $\frac{20}{60}$. He wants to have the right eye operated on, although there is a marked shadow of iris and some faint transparency of periphery of lens. Foerster's operation was therefore made January 26, 1884. Strabismus hook used after the iridectomy in a rotatory motion; no iritis, and patient left hospital on the second day after the operation. Of course at the present time there is no very marked change of the cataract.

Reports of Societies.

AMERICAN NEUROLOGICAL ASSOCIATION.

Tenth Annual Meeting, held in New York, June 18, 19, and 20, 1884.

(Concluded from page 700.)

THURSDAY, JUNE 19TH — SECOND DAY — AFTERNOON SESSION.

THE Association was called to order by the President. The Council reported favorably on the nomination of Dr. Danillo for Associate Membership.

DR. HAMMOND moved that the Association proceed to ballot on the election of J. Leonard Corning to active membership, whose name had not been reported upon by the Council.

A warm discussion ensued, and the motion finally prevailed. The Association proceeded to ballot and Dr. Corning was elected—ayes 10, nays 8.

ENCEPHALIC NOMENCLATURE.

Discussion on Dr. Wilder's paper, read at the evening session Wednesday, was then opened by the author giving a summary of his contribution, and at the close offering the following resolutions:

Resolved, That in the opinion of this Association the advancement and dissemination of an accurate knowledge of the macroscopic anatomy of the brain will be facilitated by substituting for many of the polynomial terms, technical and vernacular, now in use, technical names which are brief and consist each of a single word.

Resolved, That we recognize the advantages of using such monomial compound terms as antiplexus, diatela, hemiseptum, mesocœlia, and cognate words proposed by Prof. B. G. Wilder, and see no serious objection thereto.

Resolved, That there be appointed by the chair a committee of five on macroscopic encephalic nomenclature, with instructions to report at the next meeting a list of such terms as in their judgment may properly be recommended for use.

The paper was discussed by Drs. C. L. Dana and W. R. Birdsall, of New York, who made some criticisms on the proposed nomenclature, and DR. W. A. HAMMOND,

of New York, moved that the resolutions be taken up as the first item of miscellaneous business to-morrow. Carried.

Dr. G. M. Hammond then read a paper entitled

CAN LOCOMOTOR ATAXIA BE CURED?

The author of the paper had collected a few cases which showed that posterior spinal sclerosis has been cured, and presented a patient who had remained cured for nearly two years. There was a syphilitic history. Dr. Hammond reached the following conclusions:

1. That absence of the patellar tendon reflex in locomotor ataxia is not always caused by sclerosis of the posterior columns.

2. That sclerosis of the posterior columns may exist without being accompanied by the ordinarily prominent symptoms of ataxia.

3. That congestion of the posterior half of the spinal cord may give rise to most, if not all of the symptoms of locomotor ataxia.

4. That it is impossible during life to make a differential diagnosis between posterior spinal sclerosis and posterior spinal congestion.

5. That posterior spinal congestion is curable.

6. That there is no evidence to show that sclerosis once existing in the spinal cord has ever been removed.

7. That those cases of so-called locomotor ataxia which have been cured were simply cases of spinal congestion more profound in the posterior half of the spinal cord.

Dr. W. A. Hammond thought the view, that the condition was congestion and not sclerosis in the cases in which it had been said that locomotor ataxia was cured, was probably correct. He then reported a case lately under his observation, in which a man with an apparently syphilitic history, exhibited all the symptoms of locomotor ataxia, which did not yield to iodide of potassium in very large doses with mercury, but promptly yielded to nitrate of silver, one-fourth grain t. i. d., with codeine to produce sleep. He could not account for such results, nearly complete disappearance of symptoms within two weeks, except upon the theory of congestion.

Dr. Bartholow, of Philadelphia, thought a distinction should be made in cases when drawing conclusions concerning the action of remedies; that is, between those due to gummata and those due to syphilis, when it acts secondarily as a cause. In that restricted sense he believed locomotor ataxia could be cured; that is, the gummata may be removed and the symptoms relieved, besides in many other cases the progress of the disease can be arrested. He did not believe that any case of locomotor ataxia is curable in the sense of removing the *status quo*.

The paper was further discussed by Drs. Corning, of New York; Webber, of Boston; Rockwell, of New York; Massey and Mills, of Philadelphia; Bannister, of Chicago; Birdsall, of New York, and Dr. G. M. Hammond.

Dr. S. G. Webber, of Boston, then read a paper on

MULTIPLE NEURITIS,

an affection which has lately assumed an importance not accorded to it formerly. It is only within a few years that general inflammation of the nerves has been recognized. Cases have been reported at intervals, but special attention was not directed to the subject until Jeffroy, in 1879, Leyden, in 1880, and Stewart, in 1881, described cases. Even then it was some months before the possibility of a general diffused neuritis was fully recognized, if, indeed, it is as yet.

Up to this time, Dr. Webber had found the records in the Boston City Hospital of six cases without and twelve cases with autopsies. He gave a summary of each of these, and exhibited microscopic sections of nerves removed from the bodies of the patients, which showed thinning of the medullary sheath at Ranvier's constrictions, without break in the axis cylinder, and without increase of nuclei; or in the fibres most altered, an increase of nuclei, granulated débris, and apparently small masses of protoplasm united in the midst of it. The distal ends of the nerves showed the changes of secondary degeneration after section of a nerve. Disturbances of sensation is one of the most constant and prominent symptoms. Sometimes the patient can mark the course of the nerve by the pain. General loss of flesh is a prominent symptom.

The disease is to be diagnosticated from anterior poliomyelitis by pain and hyperæsthesia, tenderness over nerve-trunks, etc. Differential diagnosis must also be made between it and progressive muscular atrophy—lead paralysis. Dr. Webber was not sure that any treatment shortened the attack. Salicylic acid seemed to cut short the pain in some cases. In most cases the patients recovered more or less completely, but in several cases much time and patience were required in straightening the contracted limbs, and strength was regained only very gradually.

The paper was discussed by Dr. Rockwell, of New York, who spoke of the good effects produced by touching the sensitive points with the actual cautery, and by Dr. Birdsall, of New York, who was inclined to the opinion that the changes in the nerves in this class of cases are due to central lesions.

Dr. Webber had found blisters to be acceptable to patients, and they relieved the pain. He had been unable to induce his patients to submit to the use of the actual cautery.

Dr. R. W. Amidon presented a specimen which showed degeneration of gyrus angularis, the lesion found in

A CASE OF WORD-DEAFNESS AND BLINDNESS, WITHOUT PARALYSIS.

Dr. Roberts Bartholow, of Philadelphia, then read a paper on

SOME OF THE USES OF CHLORIDE OF GOLD,

in which it appeared that the compound of chloride of gold and sodium had proved serviceable in the treatment of a large number of affections, but especially sclerosis wherever developed.

The communication was discussed by Dr. Bannister, of Chicago, and Dr. Dana, of New York.

The Association then adjourned to meet at 2.30 P.M. Friday.

Friday, June 20th—Third Day—Afternoon Session.

The Association was called to order by the President. The Secretary acknowledged the receipt of letters of regret at inability to be present, from Drs. Schmidt, of New Orleans; Eskridge and Weir Mitchell, of Philadelphia; Jewell and Clevenger, of Chicago, and Seguin, of New York. He also acknowledged the receipt of four monographs from Dr. Bernhardt, an associate member.

Dr. Danillo was elected associate member.

PROPOSED AMENDMENTS TO THE CONSTITUTION AND BY-LAWS.

Dr. W. A. Hammond offered the following: To amend Article VI. of the Constitution by striking out the words, "third Wednesday in June," and inserting, "first Wednesday in May."

Dr. E. C. Spitzka offered the following amendment to the By-laws: "All business not of a scientific nature shall be transacted in executive session. An executive session shall be held after each regular session."

ENCEPHALIC NOMENCLATURE.

Dr. Wilder's resolutions were taken up and the one providing for the appointment of a committee of five by the President, to report next year, was adopted.

The President appointed Drs. Wilder, Spitzka, McBride, Birdsall, and L. C. Gray.

On motion the other resolutions were referred to this committee.

THE PRESIDENT called Dr. W. R. Birdsall, of New York, to the chair and then read a paper entitled

THE EFFECTS OF INJURIES OF THE SPINAL CORD UPON THE EXCRETION OF CARBONIC ANHYDRIDE.

The experiments were performed on rabbits and cats by means of Wordschiloff's instrument. The apparatus was heated to 100° F., the rectal temperature was taken and the animal placed in a chamber. The reason for maintaining the calorimeter at so high a temperature was that he wished to see the effect on the rectal temperature. If the ambient air should be much lower than that of the animal, then so much heat would be dissipated through the vaso-motor paresis that no rise of rectal temperature would take place.

In Dr. Ott's seven experiments upon partial division of the spinal cord, an increase of carbonic acid was noted in all except two. It made no difference in a majority of them whether the white or gray was alone divided. In relation to temperature and partial section of the cord no rise of temperature was seen above that observed after the animal had been an hour in the calorimeter, except in two; in the others it fell below normal. The rise of temperature took place where little beyond the spinal gray matter was divided.

The paper was discussed by Drs. Bartholow, of Philadelphia, W. A. Hammond and E. C. Spitzka, of New York, and the discussion related to the effect produced on the temperature of rabbits merely by confinement and an operation.

DR. G. L. WALTON, of Boston, then read a paper, entitled

A CONTRIBUTION TO THE STUDY OF HYSTERIA AS BEARING ON THE QUESTION OF OÖPHORECTOMY.

When the hysterical symptoms occurring in persons possessing no hereditary nervous susceptibility date from the accession of a pelvic trouble, and disappear with its relief, the etiological connection between the local and general disturbance can hardly be doubted. It was to that class of cases, distinguished from those in which the local symptoms are secondary to the hysteria, that the question of oöphorectomy should be narrowed. In certain cases of hysterical hemianæsthesia and hystero-epilepsy, it seems extremely probable that the implication of the ovaries in an organic disease offers the starting-point for the irritation producing the hysterical condition, and in such cases the prospect of relief from operation is too good to be neglected, when milder measures have failed, and when the symptoms are severe enough to make life a burthen on account of pain.

Dr. Walton read at some length on the anatomical connection between the ovaries and hysterical symptoms, and the relation which exists between them and the cortical cerebral nerve-cells. He also discussed the two theories, the dynamic and the vaso-motor, and gave his reasons for accepting the latter in explanation of the phenomena of hysteria.

Dr. Walton cited a case which illustrated the rôle which hysteria may play as an indication for the operation. The marked improvement which followed was with regard to the convulsive attacks, previously so severe and frequent, only two slight attacks having appeared since the operation.

On motion by Dr. Amidon, the courtesies of the Association were extended to Drs. Emily Blackwell, E. M. Cushier, and M. Putnam-Jacobi, and they were invited to participate in the discussion of Dr. Walton's paper.

The discussion was opened by DR. E. C. SPITZKA, of New York, who was far from being as clear in his mind as the author of the paper had expressed himself concerning the propriety of resorting to oöphorectomy.

DR. C. K. MILLS, of Philadelphia, was of the opinion that, in certainly the vast majority of cases in which the operation had been performed, the patient might have been relieved by other measures.

DR. J. J. PUTNAM, of Boston, thought that as the relief of eye-strain in a certain number of cases gave relief to certain head symptoms, so oöphorectomy, if performed with the patient's complete understanding of the possible results to be obtained, must necessarily remain as one of the means to be resorted to, at least when all other measures have failed.

DR. ROCKWELL, of New York, had been impressed with the fact, based upon the records of cases seen at the Woman's Hospital, that in quite a minority of cases where various symptoms had been attributed to ovarian disease, they were really not dependent upon disease of the ovaries, but upon other conditions, and the patients had been relieved entirely while the ovarian disease remained unchanged.

DR. PUTNAM-JACOBI referred to cases in which improvement followed the operation, and the discussion was closed by Dr. Walton.

TYPICAL HYSTERICAL SYMPTOMS IN MEN DUE TO INJURY, AND THEIR MEDICO LEGAL SIGNIFICANCE.

DR. J. J. PUTNAM, of Boston, read a paper on the above subject, in which he gave the history of a case, and some of the points brought out on the trial for damages for injuries alleged to have been produced by a railroad accident. It was the third case he had seen of more or less complete hemianæsthesia in *male* patients, within a comparatively short time, as the result of concussion. It was well known that the general hysterical state, as well as a variety of marked hysterical symptoms, might make their appearance under certain circumstances in men. A number of cases of this kind had been reported by Page ("Injuries to the Spine"), to whom justly belonged the credit of pointing out that Erichsen and his followers are on the wrong tack in seeking to group the symptoms of railway concussion among the signs of spinal disease, instead of referring them to the functional central disorders where the majority of them unquestionably belong.

The only original observations which his paper sought to establish was, that even when all the prominent symptoms of hysteria, if any were present, have faded away, disorders of sensibility, mainly unilateral, may remain and serve as a welcome guide to the expert. It was past belief that a man, not previously under the training of a professional expert, should be shrewd enough to assert a set of symptoms which neither court nor jury could comprehend nor sympathize with.

Dr. Putnam thought it would conduce to the interests of justice and the credit of the profession, if the courts could be led to understand clearly that there is a hysteria which deserves something better than to be treated with a smile and a cold shoulder; that it is an affection which has its own pathology and its own symptoms, and is not a mere mirror of real disease.

The paper was discussed by Dr. C. L. Dana, of New York.

DR. SARAH J. MCNUTT then presented a brain which showed atrophy with sclerosis of the region of the fissure of Rolando and read a paper entitled

DOUBLE INFANTILE SPASTIC HEMIPLEGIA

based upon the history of the case.

The Association then adjourned to meet at 8.30 P.M.

THIRD DAY—EVENING SESSION.

The Association was called to order by DR. W. R. BIRDSALL, of New York, Vice-President.

Dr. Auguste Forel, of Zurich, was elected associate member.

Reading of papers being next in order, DR. BIRDSALL called Dr. L. Weber, of New York, to the chair, and then read a paper on

OPHTHALMOPLEGIA EXTERNA PROGRESSIVA,

in which he reported two cases of slowly progressive

paresis of all the external muscles of both eyes, producing ptosis and nearly complete immobility of the eyeballs, with complete preservation of the functions of the internal ocular muscles, accommodation being normal, and reaction of the iris to light and accommodative movements also normal, without perceptible lesion of the fundus; vision normal in one case, defective from irregular astigmatism in the other; no evidence of disease in any other cranial nerve, or in any part of the body; no headache, nor sign or suspicion of syphilis; both male patients, aged respectively seventeen and twenty-nine years.

The paper was discussed by DR. E. C. SPITZKA, of New York, who spoke of the possible explanation of the paralysis from an anatomical standpoint, and the discussion was closed by Dr. Birdsall.

STATISTICS CONCERNING LOCOMOTOR ATAXIA AND SYPHILIS.

Dr. Birdsall also presented Dr. E. C. Seguin's statistics, based on cases from private practice, with special reference to the efficiency of syphilis in the etiology of tabes dorsalis.

There were 72 cases, of which 22 gave a history of chancre alone, or 30 per cent.; 16 gave a history of chancre and secondary symptoms, or 22.2 per cent.; a total of 52.2 per cent. with syphilitic histories.

In 14 cases there was no history of either chancre or secondary symptoms, or 19.4 per cent.; and in 20 cases no mention was made with regard to syphilis, or 28 per cent.; total, 48.4 per cent.

Of the 72 cases, therefore, there were 52.2 per cent. with syphilitic history, against 48.4 per cent. in which there was either no chancre or secondary symptoms, or no mention was made concerning syphilis.

Dr. Birdsall also added the statistics which he presented last year. Whole number of cases collected, 525; 225 with history of syphilis, or 43 per cent. Of his own cases there were 42, and of these 4 gave a history of syphilis, or 9.5 per cent.

DR. AMIDON presented Dr. Webber's (Boston) statistics; 62 cases, 33 hospital, 29 private; 20 had had syphilis, 54 per cent.; 17 had not, 46 per cent.; not mentioned in the other cases. Of the 37 cases 19 were hospital and 18 private patients; of the 19 hospital patients 13 had had syphilis; of the 18 private patients 7 had had syphilis.

DR. E. C. SPITZKA, of New York, had two sets of statistics; total 61 patients in dispensary practice, and 23 or 25 private patients. The proportion of well-established syphilitic cases was over eighty per cent. One case was a well-established cure effected by anti-syphilitic treatment.

DR. ROCKWELL, of New York, had had 44 cases of locomotor ataxia, in 17 of which there was a distinct history of syphilis, or about forty per cent. Six of the patients were women, and two were syphilitic.

DR. J. J. PUTNAM, of Boston, said that of the 34 cases which he sent to Dr. Seguin, forty-nine per cent. were syphilitic. There were *two* cases occurring in women, and neither of them was syphilitic.

DR. SPITZKA remarked that of his sixty-one cases, two occurred in women, neither of whom was syphilitic.

DR. L. WEBER gave the statistics which he had already published (see THE MEDICAL RECORD, April 5, 1884).

The general subject elicited some discussion, after which DR. C. L. DANA, of New York, read a paper entitled

FOLIE DU DOUTE AND MYSOPHOBIA,

in which he referred to the history of folie du doute, or the "doubting madness," chiefly studied by the French. Griesinger and Berger had also described a psychopathic symptom which belonged to the same category, and had called it "grübelsucht," or metaphysical mania. In folie du doute the patient is harassed with a constant desire to question, speculate, and refine over details. His mind is never settled, but is in a condition of "pruritus," It is a psychopathic symptom which indicates that the patient is a monomaniac, and truly insane, or only hypochondriacal, or profoundly neurasthenic and hysterical. It is the form in which primäre verrucktheit sometimes develops. Mysophobia, or fear of contamination, is a symptom indicating probably a similar condition.

Folie du doute has been divided into several varieties, such as the suspicious, the calculating, the timid, and, finally, the *tactile*, and mysophobia had been classed as the tactile form of folie du doute. This classification was open to criticism, but Dr. Dana was inclined to think it correct.

He then related two cases, one of typhoid folie du doute, as described by Falvet, Ball, and others; the other one of mysophobia, as first described by Dr. Hammond. The first patient was a married man, thirty years of age; the second was a single woman, twenty-eight years of age.

The paper was discussed by Drs. E. C. Spitzka and L. Weber, of New York; J. J. Putnam, of Boston, and the discussion was closed by Dr. Dana.

The following papers were read by title: "Mental Physics," by Dr. S. V. Clevenger, of Chicago; "Note, with seven Photographs, on the Impossibility of Mistaking the Auditory for the Trigeminal Region in the Medulla Oblongata of Reptiles," by Dr. John J. Mason, of Newport, R. I.

DR. G. BETTON MASSEY, of Philadelphia, then read a paper, in which he reported

A CASE OF SUDDEN LOSS OF VISION, FOLLOWING ANÆSTHESIA OF THE FIFTH NERVE, WITH REMARKS ON THE MODIFYING EFFECTS OF ANÆSTHESIA ON THE GALVANO-REACTION OF THE SPINAL SENSES.

The paper was discussed by Dr. A. D. Rockwell, of New York.

DR. GEORGE W. JACOBY read a paper on

CEREBRO-SPINAL SATURNISM,

in which he reported two cases, one of saturnine paraplegia, and one of saturnine ataxia. The paper was discussed by Drs. Amidon, Birdsall, and Dana, of New York.

DR. C. L. DANA, from the committee appointed to report a minute or letter on the death of Dr. George M. Beard, reported, and the report was accepted and ordered entered on the minutes.

The Association then adjourned, subject to the call of the Council as to time and place for 1885.

THE POWER OF LOCAL HEALTH BOARDS.—The United States Supreme Court has just decided an interesting case between two slaughter-house companies doing business in the city of New Orleans. One of these companies had some exclusive trade privileges granted to it by the Louisiana Legislature, which were afterward revoked by the Legislature. Subsequently health ordinances were passed by the city authorities of New Orleans which interfered with the business of the company to some degree. A suit was then brought to restrain any interference by the authorities, it being claimed that the original exclusive rights granted by the Legislature created a contract which could not be violated. The case came to the Supreme Court of the United States, which has just held that the regulation of unwholesome and dangerous trades is included in the general police powers of the State, which it has for its own preservation, and that nothing can interfere to prevent the execution of ordinances intended for the improvement of the general health or the well-being of society. This power to enforce health regulations cannot be bargained or legislated away under any circumstances, and consequently the Louisiana Legislature exceeded its powers in originally granting the exclusive privileges to the company, and it could afterward revoke them legally.

Progress of Medical Science.

PEDIATRIC APHORISMS.—The following aphorisms of Professor Letamendi are quoted in *El Dictamen* of May 10, 1884: 1. Children are like the mob; they always complain with reason, although they cannot give the reason why they complain. 2. Always look at the lips of a pale and sickly child; if they are of a deep red color, beware of prescribing tonics internally. At the outset you will congratulate yourself, but in the long run you will repent of having employed them. 3. As a general rule, a sad child has an encephalic lesion; a furious child, an abdominal one; a soporific child has both, though indistinctly defined. 4. An attendance on children produces in the mind of an observant physician the conviction that the half, at least, of adult transgressors are so through morbid abdominal influences. 5. A sunny living-room, a clean skin, and an ounce of castor oil in the cupboard, these are the three great points of infantile hygiene. 6. To dispute the clinical value of tracheotomy in croup is a waste of time to no good purpose. Croup or no croup, if there be a positive obstruction to respiration in the larynx, it is but according to reason to open a way for sublaryngeal respiration. In the days of more knowledge and less nonsense, tracheotomy will be ranked among the minor surgical operations. 7. Dentition is a true multiple pregnancy in which the uterus and its fœtuses become petrified in proportion as they grow. It is not the direct or eruptive pressure, but the lateral pressure of all together, that is the most dangerous. It is from this that so many cerebral symptoms appear which can in no way be relieved by incisions of the gums. The only recourse against the dangers of this transverse pressure is to give the child more nourishment, in the hope that as the general condition is bettered the local condition will also be improved. 8. If the incisors of the first dentition are serrated it is bad, but if those of the second formation are the same, it is worse. It foretells a number of lesions arising from deficiency of mineral salts in the tissues. There is one only exception, and it is an important one. When the serrated incisors are seen in strong children in whom the fontanelles have closed early, it is a sign of a robust constitution. Instead of a number of small and sharp dentations, there are a few large blunt ones. 9. To regard the eruption of the teeth as the sole factor in the general process known as the first dentition, is to perpetrate a sort of medical synecdoche. Children get their first teeth because they are at the same time getting a second stomach and second intestines. 10. The body of a child possesses such a degree of "acoustic transparency" that in cases of necessity or convenience auscultation may be practised with the hand, converting it into a telephone which will reveal as much to the physician as even his ear could do. 11. In practice it is well to distinguish with precision a case in which disease is due to lumbricoids from one in which lumbricoids are due to disease. For in the former case anthelmintics are of service, but in the latter they do harm. 12. Since, until a child is able to talk clearly, his relations with the physician are purely objective, it is very necessary that we should study as carefully as do the veterinarians the exact correspondence between the lesions and the expression of the patient. 13. If you wish to cure rapidly and well joint-diseases in infants, you must treat them as you would a conflagration—douches, douches, and more douches, until you have succeeded in extinguishing them. 14. The entire system of the moral relations between children and adults should be changed. To speak to them incorrectly merely because they cannot pronounce well; to excite their fears and arouse their weird imaginations simply because they are easily frightened and impressionable; to stimulate their vanity because they are naturally inclined to be vain; these and other similar actions are not only wrong, but absurd. 15. There is finally a danger to the woman of contracting a vice as yet unregistered in the annals of concupiscence—mastomania, or the sensuality of nursing. When this physiological act degenerates into a vice, nursing becomes so frequent as to be nearly continuous, and the result is ruin to both mother and child. Finally, the physician must here, as always, be at once wise, discreet, of good judgment, and firm.

THE GLOBUS HYSTERICUS.—Dr. Roth regards this symptom as due to a paræsthesia of the sympathetic. And as the pellitory root has been found useful in paralysis of the tongue and pharynx, the author was led to try it in globus. He gives from ten to twenty drops of the tincture of pyrethrum four times a day. He reports six cases in which he employed this remedy with satisfactory results.—*Centralblatt für Gynäkologie*, May 3, 1884.

THE ADMINISTRATION OF PHOSPHORUS.—M. Pierre Vigier concludes an interesting communication on the pharmacology of phosphorus with the statement that its administration should be limited to the two following forms: 1. The phosphide of zinc, in pills of 8 milligrammes, corresponding to 1 milligramme of phosphorus, of which from two to eight may be taken daily; 2, phosphorated oil, one per cent., in capsules of 10 centigrammes each, containing 1 milligramme of phosphorus.—*Midland Medical Miscellany*, May, 1884.

ETIOLOGY OF KNOCK-KNEE.—Professor Lücke calls attention to the action of children's stocking-holders in causing in-deviation of the knees. They are made usually of elastic webbing and are fastened to the outer side of the stocking, acting thus as artificial muscles. The effect is more marked when socks are worn. Dr. Malthe recognizes also the action of the stocking-holders in such cases (*Norsk Magazin for Lægevidenskaben*), but deprecates equally the use of garters above the knee as advised by Lücke. These cause local atrophy of the muscles, and when very tight may even interfere with the nutrition of all the parts below their point of application. The stockings should reach above the knees, and should be attached to the drawers by buttons on both the inner and outer sides of the leg.

VERATRIA IN THE TREATMENT OF PRURITUS.—Dr. Chéron recalls the difficulty experienced in allaying the intolerable itching which occurs so often, either with or without an eruption of the skin, at the menopause. After trying various other remedies without success, he found that veratria exercised a most beneficial effect. When the pruritus is localized in the axillæ, abdomen, or other parts, he uses an ointment of about two grains of veratria to the ounce of lard. A little piece of this, about the size of a pea, is rubbed on the itching parts morning and evening. When the pruritus is general the veratria is best given internally. Three-tenths of a grain is divided into 40 pills, of which from two to six are taken each day. Never more than one pill should be taken at a dose, and the total daily number should not exceed six. —*Lyon Médical*, May 4, 1884.

TREATMENT OF COLD ABSCESS.—The following method is pursued by Professor Verneuil in the treatment of abscess occurring in bone disease (*Lyon Médical*, May 4, 1884). After evacuation of the pus by the aspirator, about half an ounce of an ethereal solution of iodoform (one part to five) is injected into the abscess sack. In spite of this injection a reaccumulation of pus takes place, but after several repetitions of this procedure the purulent secretion diminishes, the general condition of the patient improves, and within a few months a cure is obtained.

DIGITALIS AS AN ANAPHRODISIAC.—It is stated by Dr. N. L. Folsom that digitalis, administered in ten-drop doses three times a day, will effectually allay the sexual appetite. In some cases larger doses are required, and it may even be necessary to increase the amount to a teaspoonful.—*Cincinnati Lancet and Clinic*, May 10, 1884.

THE MEDICAL RECORD:

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GEORGE F. SHRADY, A.M., M.D., EDITOR.

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"A SOVEREIGN STATE."

AN important conference of health officers of several of the Southern States was recently held at New Orleans for the purpose of considering rules for the uniform regulation of quarantine on the Gulf coast. During the conference a representative from Tennessee offered a resolution to memorialize Congress to invest the National Board of Health with authority and means as a medium of inter-state quarantine. In the discussion which followed, the President of the Louisiana State Board of Health, with old-time assurance, informed the conference that Louisiana was "a sovereign State" and could take care of herself. The proposition was lost by the following vote, viz.: Ayes, Mississippi and Tennessee; noes, Louisiana, Texas, Alabama, and Florida. This action of the conference is a curious illustration of the influence which local quarantines have upon the opinion of health officers as to the sovereignty of the States which control them. On the contrary, States located in the interior and on the great lines of travel, and which must depend for their protection against foreign pestilences on the power of the seaboard States to prevent their invasion and spread, avail themselves of every possible means and aid to protect their people from the devastations of these epidemics. To the latter the sovereignty of the State is an idle and meaningless phrase in their organization against a common foe that knows no State lines in its triumphal march.

It is not surprising that the health officers of Tennessee feel deeply on the subject of protection from yellow fever. Situated as that great State is, in the very heart of the South, it is peculiarly subject to invasion by a contagious or infectious disease of foreign origin which passes the quarantine of the Gulf or South Atlantic coasts. And her experience proves that her health authorities are not too anxious nor too strenuous in their efforts to throw around the State impregnable defences against the further invasions of wide-spread epidemics, and especially of that most dreaded of all preventable plagues, yellow fever. Three times within a generation has this terrible scourge passed the quarantines of the Gulf and swept over the fairest portions of Tennessee like the besom of destruction. Within the last decade we have heard intelligent citizens of the Western part of that State discuss the question of the propriety of occupying their homes only during the winter months.

When it is remembered that this scourge of her people, this blight upon her material prosperity, has so many times and so recently reached Tennessee through the gateway of the Mississippi Valley—the Louisiana quarantine—it seems to us a matter of prudence and wise foresight on the part of her representatives in the conference, not only to invoke the co-operation of other States, but also of the general Government, in a common effort to prevent the spread of an epidemic from one State to another. And it is presumptuous on the part of the health authorities of the State of Louisiana to assert her sovereignty and her ability to take care of herself in the presence of that monarch pestilence of the tropics, yellow fever, which knows no metes or bounds of human empire and laughs to scorn the sovereignty of States. But even admitting the claim that Louisiana can take care of herself in the management of epidemics, why should she prevent another State from securing protection from the wide dissemination of the seeds of pestilence which have passed through her quarantine and been scattered broadcast through the Valley of the Mississippi? But the history of yellow fever gives multiplied proofs that the Louisiana State Board of Health never has been so powerful and so vigilant that either the people of that State or of the Valley States could rely implicitly upon its ability to protect them from that scourge of the tropics. If, indeed, we may trust the reports of the New Orleans Auxiliary Sanitary Association, we have grave doubts as to the ability of the State Board of Health to take care of the sanitary interests of New Orleans.

A citizen recently made an inspection of a small area of that city with his eyes open and nose well poised. He is a clergyman—therefore truthful, and has travelled much in oriental cities—and is familiar with the sight of filth and the odor of putrefaction. He declared at a recent meeting of the Association that, in all his experience at home and abroad, he never witnessed filth, in and about the houses of the people, greater in amount and more disgusting in quality, and that it exceeded by far anything he had known in any city on the globe. He proposed in future comparisons to substitute "more filthy than Clio Street" for any saying hitherto employed expressive of extreme filthiness.

New Orleans has much at stake during the coming season, and she cannot be too cautious about her public health and the healthfulness of the State and city. Let but the breath of rumor or suspicion that yellow fever is present or even threatens New Orleans get abroad, and her International Exhibition will be limited to that one "sovereign State."

AN OPPORTUNITY FOR AMERICAN PATHOLOGISTS.

AT the banquet in Berlin, tendered to Dr. Koch on the return of the cholera commission, that eminent and successful investigator was called upon for a speech. In his response allusion was modestly made to the results of the commission's work, and the suggestion was put forth that, by a similar course of investigation, the germs of yellow fever and other infectious diseases might be found. It would be naturally inferred from the tenor of the remarks that Dr. Koch and his assistants held themselves ready to visit some part of the new world and hunt down, for example, the hypothetical parasite of yellow fever. If this duty should be assigned them, they

would, no doubt, be cordially welcomed and efficiently assisted. But it would be a little odd, with our National Board of Health, and our numerous State and municipal sanitary organizations, to see a few foreigners in our midst looking for, and perhaps discovering, the germs that have so far eluded us.

Yellow fever is the bane of American seaports in the summer. It interferes with our commerce, and at intervals spreads death and disaster among the people. As a country we are especially interested in finding the specific organism of this disease, if such exists. Are there no investigators among us competent, and no State or other organization willing to undertake a thorough study of the disease, using the methods adopted abroad? Or must we wait for Dr. Koch to come, capture the bacillus in a few months, and then return to be fêted and decorated with more medals at Berlin?

We write this while aware that reports (whose authenticity is, however, questionable) are published to the effect that the organism of yellow fever has already been discovered.

MICROCOCCI UNDER THE FLOOR.

We find it stated in the *Medical Press and Circular* that Dr. Rudolf Emmerich, assistant in the Hygienic Institution, Munich, some time ago discovered the encapsuled micrococci (Friedländer's) which are said to be characteristic of pneumonia under the flooring of a prison at Amberg. He subjected them to pure cultivation experiments, which gave the result that they really were Friedländer's cocci. He considers that the cause of an epidemic of pneumonia that ravaged the prison in 1880, and from which forty-six out of one hundred and sixty-one inmates succumbed, is now made plain. He examined the corresponding parts of houses that were free from disease, and in these failed to find a fungus similar to that discovered in the prison.

Such a discovery as this is somewhat startling, and, assuming the correctness of Dr. Emmerich's conclusions, may well tend to excite misgivings as to the possibility of ever thoroughly disinfecting a room or a house in which a person sick with contagious disease has been. But as regards Friedländer's diplococci, it is as yet by no means proven that they are characteristic of pneumonia. In a communication made to the recent German Surgical Congress, Dr. Schüller stated that he had found these identical organisms in a case of metastatic arthritis occurring in scarlet fever. Strange coincidences are constantly occurring and will continue to occur to the end of time, and the association of the micrococci of Friedländer with pneumonia may possibly be found to be but another illustration of this fact.

A WORD CONCERNING VACCINATION.

It does seem superfluous at this late day to bring forward any new facts in support of the value and necessity of vaccination. Still, the anti-vaccinationists are not all dead yet, and until they are it seems but an act of charity to adduce fresh proof from time to time in the hope, vain though it may be, of converting some of them. It is, of course, well understood, though our *anti* friends seem often to be unaware of it, that the protection afforded by vaccination may be weakened or entirely lost after a lapse of years, and hence arises the necessity of revaccination. An editorial in a recent number of the *London Lancet* on this subject has called forth a letter from Mr. Herbert Gonde, Resident Surgeon of the Small-pox Hospital, Highgate Hill, in which the most conclusive evidence of the prophylactic value of vaccination is adduced. It is the custom in this hospital to revaccinate all the employees as soon as they enter upon their duties, whether they show the marks of a previous vaccination or not. Mr. Gonde writes: "We have now an unbroken record of forty-eight years during which no nurse or servant of the hospital has contracted small-pox, even in a modified form. The only exception to this rule was in the case of an assistant gardener, who was hired in 1881; this man refused to be revaccinated, caught small-pox, and died." It seems incredible that any sane man can, in the face of such evidence as this, continue in the honest belief that vaccination does not protect against small-pox. Doubtless there are many facts which at first sight seem to justify the opponents of vaccination in the stand which they take. Cases are by no means rare of small-pox occurring in subjects who have been cut for the cow-pox, but the fault lies not in the principle, but in an imperfect vaccination, or in a weakening of the protective influence through lapse of time. No doubt also accidents sometimes occur from the inoculation of impure virus, or even from the slight scratch of the skin by the lancet, just as grave accidents sometimes follow other trivial causes. But there surely are no arguments against the protective value of the operation. Possibly some of these evil effects might be obviated by following the method proposed by Dr. Bourgeois, of a subcutaneous introduction of the virus by means of a modified hypodermic syringe. There can be no question that many physicians are too careless about vaccination and do not take pains enough to assure themselves that the operation has been successful. In this they inflict a double wrong—on their patients by inspiring them with confidence in a fancied security which they do not possess, and on the cause by bringing discredit upon vaccination itself as a certain prophylactic against small-pox.

IS MORPHINE DANGEROUS IN CARDIAC DISEASE?

From time to time we are shocked to hear of the sudden death of a person, soon or immediately after the hypodermic use of morphine, given probably for the relief of severe pain. Subsequent autopsical examinations have then repeatedly shown the existence of grave organic lesions of some important organ or system, which was either overlooked by the physician in charge, or having been clearly recognized, was not held to contra-indicate the hypodermic use of morphine. Accidents of this kind would seem to be particularly frequent where renal disease is present. In chronic heart disease a disastrous result appears to be likewise a quite possible consequence of employing so potent and rapidly acting a drug.

In a recent number of the *Centralblatt für Nervenheilkunde*, Dr. Runeberg reports a case in which a calamity of this kind occurred. The patient was a strong man, forty years of age, to whom, during an attack of angina pectoris, an injection of one-fifth grain of morphia was given. About

two minutes later the man gave a sudden start, opened his eyes, and died. The autopsy revealed extensive sclerosis of the coronary arteries, with softening of a portion of the cardiac muscle. Although such a condition rendered the patient liable to sudden death at any moment, yet Dr. Runeberg wisely suggests that the lethal issue was at least hastened by the morphine administered. Dr. Israel has recorded a somewhat similar experience, where death followed the injection of only one-eighth of a grain. In this case the patient suffered from cardiac insufficiency, associated with renal disease. These and numerous other instances of the same kind, recorded and unrecorded, are so striking as to render the theory of a coincidence, to say the least, improbable. And it therefore behooves us to exercise the utmost caution in the administration of morphine to patients suffering from grave cardiac lesions.

And this particularly as morphine, in proper cases of heart disease, is an altogether invaluable remedy, that may be just as potent for good as it seems to be capable of effecting evil. The subject is well worthy further careful study, in order that we may learn with more accuracy just what constitutes the contra-indications for its employment.

WHAT CONSTITUTES "SOUND HEALTH."

THE term "in sound health," used in many life insurance policies, and which the companies often hold to be an absolute guaranty of freedom from all disease, is construed by the courts much less strictly.

In a recent case, in a Western State, it was held as follows: "It would be most unreasonable to interpret the term 'in sound health,' as used in contracts for life insurance, to mean that the insured is absolutely free from all bodily infirmities or from all tendencies to disease. If that were its meaning, we apprehend but few persons of middle age could truthfully say they were in sound health. Yet, to obtain a life insurance a person must say that or its equivalent. It is absurd to suppose that Mr. Morrison intended to say in his application that he had no bodily infirmity, and was aware of no tendency to disease or that the company so understood him. Many cases have been adjudicated, which give construction to the term 'good health' or 'sound health' (which means the same thing), as those terms are used in contracts for life insurance. Some of these cases are referred to in May, Insurance, § 295. They all seem to sustain the conclusion we have reached, that 'a touch of dyspepsia coming on,' which manifests itself only after long intervals, which yields readily to medical treatment, and which is not shown to have been (as some of the cases put it) organic and excessive, is not inconsistent with a representation that the person so affected is in sound health, as that term is employed in contracts for life insurance."

TROUBLE IN HOSPITAL MANAGEMENT IN FRANCE.

WE had occasion several months ago to comment upon the expulsion of the Sisters from the Paris hospitals, and we then predicted that it would not be long before the unwisdom of such a step would be made manifest. But the hour of retribution has come even sooner than we anticipated. M. Charles Quentin, the director of the Conseil de l'Assistance Publique, recently addressed a confidential circular to the officers, lay and medical, of the different hospitals, wherein he complains of the lax discipline which now prevails in these institutions, and especially bewails the frightful increase in expenditures. With a degree of coolness that would make a Laplander shiver, he throws the entire responsibility for this changed condition of affairs upon the attending physicians and surgeons. In order to give greater weight to his accusations he cites two cases. One patient was receiving soup, meat, and vegetables twice a day, with a pint of *vin ordinaire* as his regular diet, and in addition was said to be taking as extra diet three pints of wine, three eggs, coffee, and about eight ounces of rum. Another was down on the extra diet list for over six pounds of meat per diem, in addition to a liberal supply of eggs and milk. But M. Quentin proves too much with his examples of wasteful extravagance. For no one can imagine a medical man ordering over six pounds of meat in addition to a quantity of other food for one patient; but it is very possible for one of the subordinates into whose hands the diet list is given to add a cipher, and thus convert an order for 300 grammes (about three-fourths of a pound) into one for 3,000 grammes (nearly seven pounds). The circular having in some way been made public, M. Després has taken up the cudgels in behalf of the medical staffs, and tells M. Quentin very plainly where the fault lies. The over-zealous gentlemen who drove the Sisters out of the hospitals are now, he says, beginning to reap what they have sown. And instead of a body of religious women who served without pay and asked only for the necessities of life, they have now to deal with a set of unscrupulous nurses who are "on the make" purely and simply, and have no interest in their work except for what it will bring them in the way of salary and perquisites. It must be remembered that these people are of a very different stamp from the professional nurses in this country, who as a class are capable, conscientious in the discharge of their duties, and kind to the patients under their charge. The French lay-nurses were recruited at short notice in large numbers to supply the places of the expelled Sisters, and naturally were ignorant of the duties required of them, and in general possessed of none of the qualifications necessary for filling so responsible a position. M. Després, who can hardly be accused of clericalism, took but little pains to conceal his disgust for the whole proceeding, and one need not be a prophet, nor the son of a prophet, to foresee that the general dissatisfaction with the present hospital management will in time compel a return to the old order of things. And the return of the good Sisters will be hailed with joy by the poor patients even more than by the doctors.

DEATH OF DR. A. BLONDEAU.—The death of Dr. Blondeau, member of the editorial staff of *Le Progrès Médical* is announced.

FRENCH CONGRESS OF SURGERY.—The Paris Surgical Society has voted to arrange for an Annual Congress of French Surgeons. America, Germany, and Italy, now have such organizations.

News of the Week.

THE HEALTH EXHIBITION IN LONDON is a decided success. Over 50,000 visitors are present on some days.

MEDICAL PARIS.—At the meeting of the Académie de Médecine, May 27, 1884, M. Luys took up again the subject of the "Movements of the Brain." His conclusions were: 1. That there is a free space between the brain and the skull which is filled with cephalo-rachidian fluid. 2. The brain moves in this space in accordance with the attitudes of the body. M. Verneuil read a paper upon "Pleural Effusion in Consequence of Removal of Tumor of the Breast." Two patients with scirrhus of the breast were operated upon and both died. Autopsy showed pleural effusion on the affected side and renal disease. The relation of the effusion to the renal disease and the operation were discussed. M. Verneuil thought that the operation excited the pleurisy. In the Société Medicale des Hôpitaux the discussion on the treatment of diphtheria with vapor of turpentine and eucalyptus was continued at its session May 23d. Nothing very positive seems to be developed. M. Graucher made a report upon the micro-organisms of ulcerative endocarditis which he has isolated and cultivated.

THE DEATH OF DR. J. G. ADAMS, OF NEW YORK.—The profession will be pained to hear of the death of Dr. J. G. Adams, which occurred in Liverpool last week. Dr. Adams was born in New York, August 12, 1807. John Adams, his father, was for many years the president of the Fulton Bank and a prominent business man. Dr. Adams was at one time a physician in the New York Hospital, but was never in general practice. He contributed extensively to medical journals and was once the editor of one of them. He also wrote the biographies of a number of eminent medical men, among them those of Dr. Jacob Harson, Dr. Alexander H. Stevens, his preceptor in surgery in the College of Physicians and Surgeons of the City of New York, and of Dr. Edward Langdon Beadle. Dr. Adams was an extensive traveller, especially in Egypt. He sailed for Liverpool on May 24th, in the Servia, and on the passage was taken ill. On his arrival in Liverpool he was carried to the Adelphi Hotel, where he died. In the earlier days of his life he was a student at Columbia College, and left Columbia for Yale, where he was graduated a B.A. in 1826, and in 1829 took the degree of A.M. In 1832–3 he graduated from the College of Physicians and Surgeons. He was in 1836 the president of the Medical and Surgical Society of New York. At one time he was the vice-president of the New York Academy of Medicine. In 1873 he was the vice-president of the New York Society for the Relief of the Widows and Orphans of Medical Men. He was a trustee of the New York Dispensary in 1874, and at the time of his death was a member of the Medical Society of the State of New York.

THE LATE DR. WILLARD PARKER.—At the adjourned quarterly meeting of the Trustees of the College of Physicians and Surgeons, New York, held June 13, 1884, the following preamble and resolutions were unanimously adopted, and the Registrar was directed to send a copy thereof to THE MEDICAL RECORD:

Whereas, Dr. Willard Parker, a late member of this Board, has been recently removed by death, after a long life of usefulness, both as Professor and practitioner of Surgery, and as Trustee and Vice-President of the College; therefore,

Resolved, That this Board do now express its high appreciation of the ability, energy, and untiring faithfulness of Dr. Parker in the performance of his duties as teacher; of his earnest devotion to the interest and prosperity of the institution, and of his valuable services as adviser and manager in the administration of its affairs; also,

Resolved, That in Dr. Parker the College of Physicians and Surgeons has lost a firm and constant supporter of its professional reputation; a most efficient aid in the formation and execution of plans for its improvement, and a teacher and colleague of unsurpassed merit, of acknowledged eminence, and well-deserved popularity.

JOHN C. DALTON, M.D., President.
ELLSWORTH ELIOT, M.D., Registrar.

THE APPEARANCE OF CHOLERA IN FRANCE AND CHINA.—A week ago (June 21st) it was announced that cholera had appeared at Toulon, France. The first death occurred, it is believed, on June 4th, and from that time till the 22d seventeen deaths had taken place. Fourteen new cases and eighteen deaths were reported on the 23d. It is supposed that the disease was brought to France by troops returning from Egypt. All the European governments have taken steps to prevent the introduction of cholera into other ports. Cholera is also reported to have broken out in the neighborhood of Pekin, and at Tokio.

THE UMBRELLAS OF LULU HURST.—Our esteemed correspondent, Dr. Jordan, of Columbus, Ga., writes that he does not think the criticism made upon Lulu Hurst's peculiar force correct. He writes: "When the girl catches the handle of an umbrella, and holds it for five to twenty seconds—the scientific investigators twenty feet away—until it is torn to pieces, tell me, I pray, who is hypnotized, the girl or the umbrella? A chair is also caused to move when no one but the girl is in contact with it. In order to assert your theory you utterly ignore these facts." We shall be glad to see a careful record of the exercise of Lulu Hurst's force upon isolated umbrellas and chairs, with tests to show that no human muscles contract when the phenomena are exhibited.

CONVICTION FOR ABORTION POSSIBLE IN OHIO.—The editor of the Cincinnati *Lancet and Clinic*, referring to this subject as raised by the Columbus *Medical Journal*, says: "All of which reminds us of the ways of the courts in Cincinnati, until a little reflex back-action business was instituted on the part of the people that has had a wonderful result in its effect on our legal tribunals, so that we are at this time justified in saying to the *Columbus Medical Journal* that a doctor of the baser sort has recently been convicted in Cincinnati of the crime of committing abortion, and has actually been sentenced to a long term of imprisonment in the penitentiary, where he is now doing the State service."

Army News.

Official List of Changes in the Stations and Duties of Officers serving in the Medical Department, United States Army, from June 15 to June 21, 1884.

MAGRUDER, D. L., Lieutenant-Colonel and Surgeon. Granted leave of absence for one month. S. O. 143, par. 7, A. G. O., June 20, 1884.

HAPPERSETT, J. C. G., Major and Surgeon. Granted leave of absence for four months. S. O. 141, par. 5, A. G. O., June 18, 1884.

PORTER, J. Y., Captain and Assistant Surgeon. From Fort Ringgold, Tex., to Fort Brown, Tex., as Post Surgeon. S. O. 73, Headquarters Department of Texas, June 9, 1884.

MADDOX, T. J. C., First Lieutenant and Assistant Surgeon. From Fort Clark, Tex., to Fort Ringgold, Tex., as Post Surgeon. S. O. 73, Headquarters Department of Texas, June 9, 1884.

BLACK, C. S., First Lieutenant and Assistant Surgeon. From Fort Concho, Tex., to Fort Clark, Tex. S. O. 73, Headquarters Department of Texas, June 9, 1884.

Medical Items.

CONTAGIOUS DISEASES—WEEKLY STATEMENT.—Report of cases and deaths from contagious diseases reported to the Sanitary Bureau, Health Department, for the week ending June 21, 1884:

Week Ending	Typhus Fever.	Typhoid Fever.	Scarlet Fever.	Cerebro-spinal Meningitis.	Measles.	Diphtheria.	Small-pox.	Yellow Fever.
Cases.								
June 14, 1884...	3	10	62	3	126	48	0	0
June 21, 1884.....	4	11	56	4	130	34	0	0
Deaths.								
June 14, 1884.....	1	6	10	3	19	28	0	0
June 21, 1884.....	0	5	12	4	29	15	0	0

THE REPORT OF THE SECTION ON SURGERY, NEBRASKA STATE MEDICAL SOCIETY, has just been received. The report was made at the Society's session in May last. It is an unusually full one, and the Western enterprise which gets it out so soon is entitled to recognition.

AN UNJUST SPITE AGAINST PIGS.—A board of health in an English town had a spite against pigs, and not long since passed an ordinance that no animal of that kind should be kept within fifty feet of a dwelling-house. This ordinance at once created great opposition, and in a suit to test its legality the courts held that the board of health had exceeded its authority.

THE NEW FRENCH CODEX, or French National Pharmacopœia, is said to be full of errors and is being severely criticised. A supplement will probably be issued containing corrections. The fact is of interest in view of the recent unsuccessful attempt to "boom" a national governmental pharmacopœia for this country. In France it is necessary by law that physicians prescribe according to the last adopted pharmacopœia.

TO PREVENT CONCEPTION.—The *Australian Medical Gazette* gives some of the methods employed by the aborigines of Central Australia to prevent conception. One mode is to make an opening into the male urethra just anterior to the scrotum; another is to split up the entire urethra, so as to entirely destroy the urethral canal from the scrotum to the base of the glans penis.

TO PREVENT SORE THROAT.—A gargle made of strong black tea and used cold, night and morning, is now the fashionable preventive in London against falling a victim to sore throat during the cold winds of the spring.

CHLOROFORM NARCOSIS DURING SLEEP.—Dr. C. B. Taylor writes to the *British Medical Journal*: "Some years ago I was consulted by the parents of an excessively nervous girl, seven years of age, who was suffering from hypermetropia and double convergent squint. The agitation of the child and consequent distress of the parents at the idea of any surgical interference were so great, that I thought it would be better to operate during sleep; and, after dismissing the patient with some reassuring remarks, arranged that this should be done the same night. Accordingly, about ten o'clock, when the child was fast asleep, I administered chloroform without disturbing her, and performed the operation on both eyes, replacing her in bed while still insensible. The anæsthetic sleep gradually merged into the natural sleep, which had never been broken; there was no vomiting, and the child did not wake until the following morning at the usual hour. There was no pain; and her alarm on finding that her eyeballs were bloodshot when looking in the glass, was allayed by suggesting that she had caught cold. She made an excellent recovery. The deformity was quite removed; and she never suspected that she had undergone any operation at all."

THE SKRLJEVO.—Under this fearful name syphilis has existed as an endemic since the end of the last century along the coast of Croatia and Dalmatia. It is supposed to have been introduced there by sailors. All efforts looking to the extermination of the disease have hitherto been unavailing, owing to the scarcity of physicians and the carelessness and poverty of the people. It is now proposed in the Reichsrath to appropriate 30,000 florins to defray the expense of transportation and board in hospital for three months of some five hundred syphilitic patients. A clause in the bill provides for the compulsory incarceration in hospital of all those affected, and this, says the *Weiner Medizinische Wochenschrift*, is the most important part of the bill, since without this clause the appropriation would remain unexpended, owing to the repugnance of the sufferers to undergo hospital treatment. One would imagine that anybody afflicted with skrljevo would seek to be rid of it as soon as possible, and it is only to be hoped that those suffering from the laryngeal manifestations of the disease are not compelled to pronounce the name—such an effort would certainly increase their misery.

RECTAL ETHERIZATION.—The New York correspondent of *The Weekly Medical Review* writes concerning rectal etherization as follows: "An adult patient in one of the largest hospitals in this city died two hours after the etherization. On examination the gut was found ruptured at the site of an ulcer, showing that the rapid distention which often occurs is dangerous, especially in a weakened condition of the intestinal canal. Another patient presented alarming symptoms on the operating table, as cyanosis, feeble heart-action, pallor, etc., after the ether-tube had been removed after ten minutes' trial, with no anæsthesia produced in that time, indicating that the ether in the intestine was absorbed suddenly and rapidly. This patient lingered long with diarrhœa, bloody stools, etc., and died at the end of three weeks from exhaustion. Other cases have presented alarming symptoms of exhaustion and bloody diarrhœa, and had the operations been grave, these, added to the shock of the operation, would undoubtedly have proved fatal in many of the cases. It is a noteworthy fact that those who have had the most experience with this method, and the experience of all in this country is but limited, are the most cautious and guarded in its praise or approval, and while recognizing its usefulness in operations about the face, still consider it of limited range of application and attended with considerable danger."

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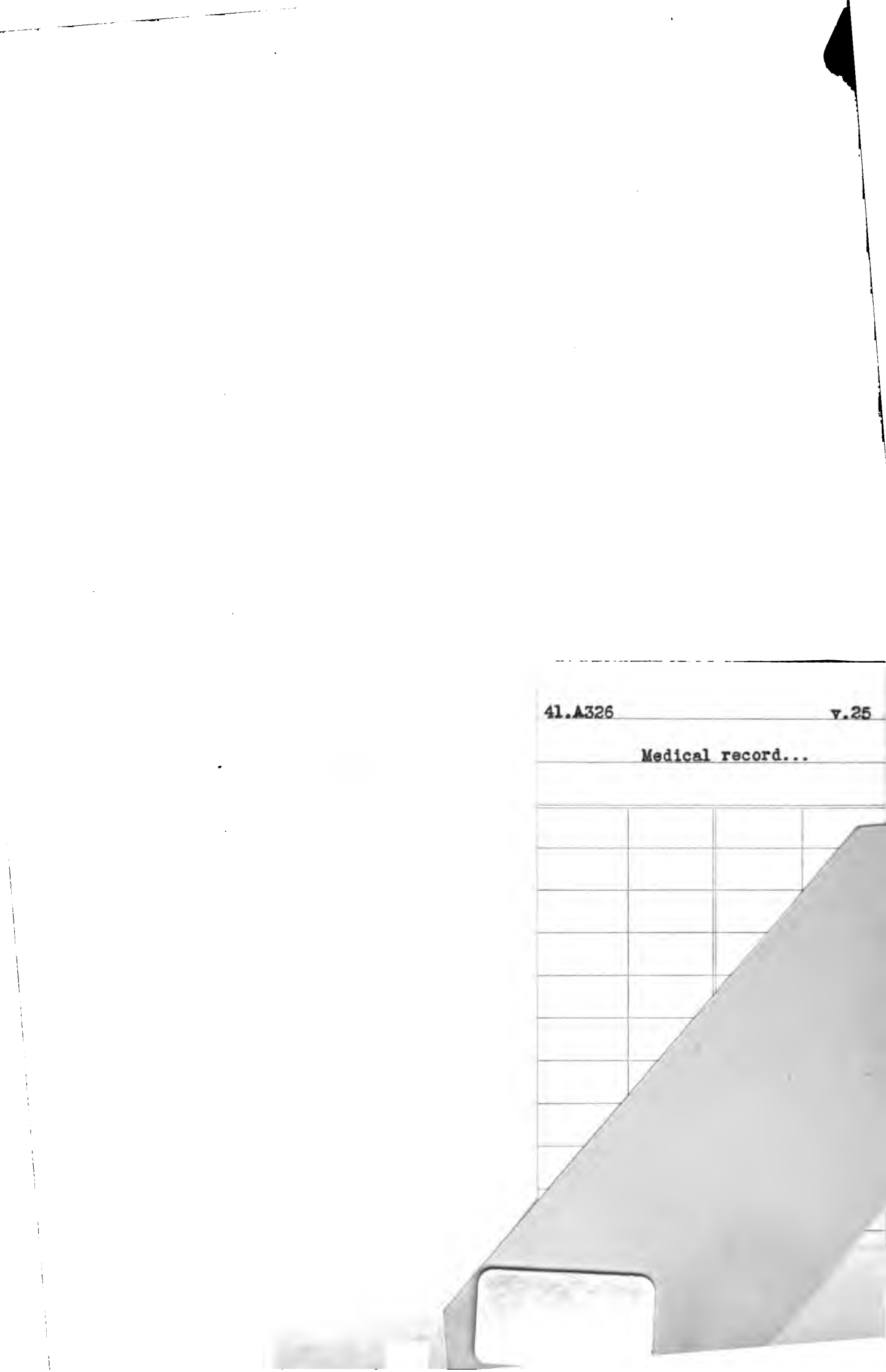
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